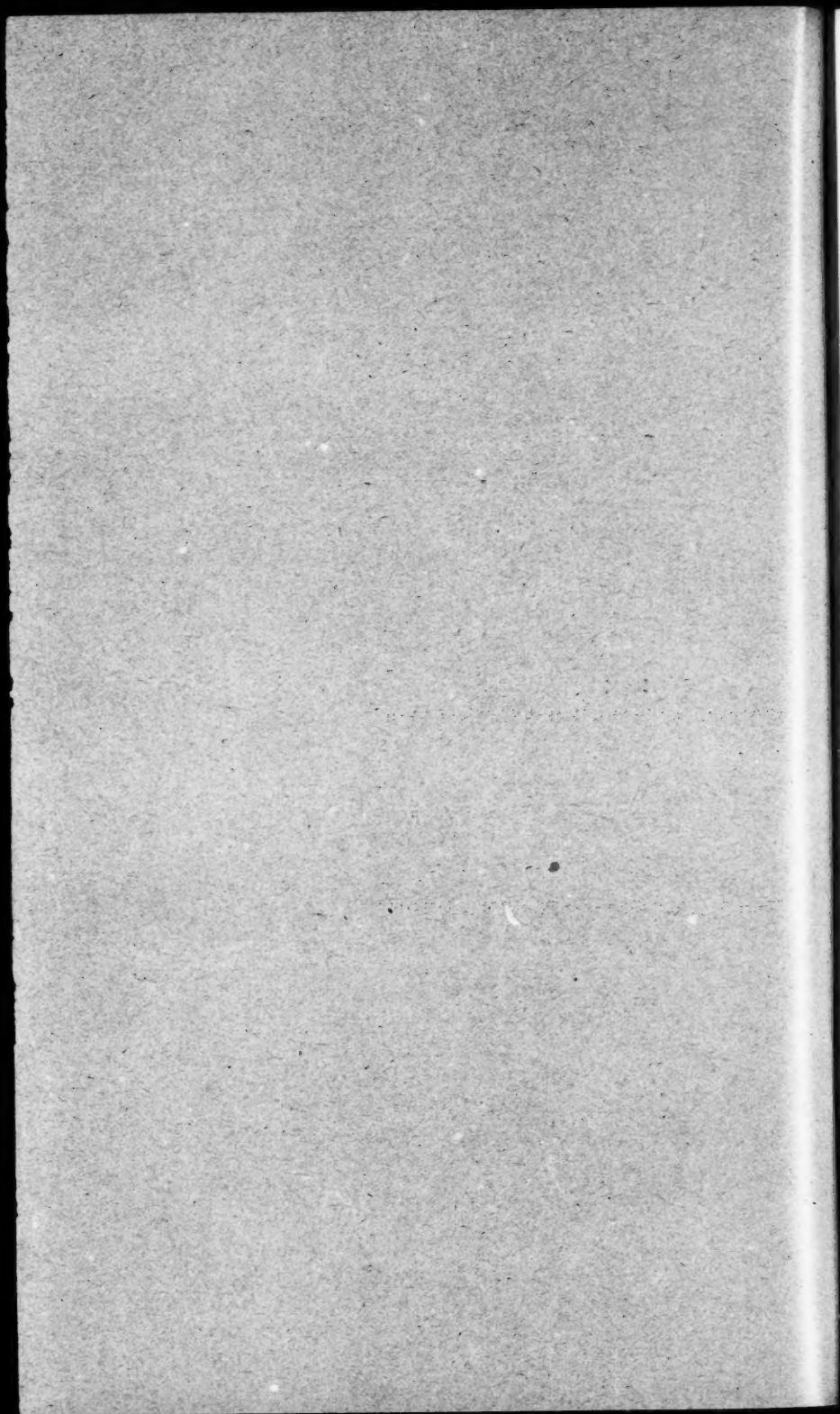


PROCEEDINGS  
*and*  
ADDRESSES  
*of*  
The American Philosophical  
Association  
1929

VOLUME III  
of the combined proceedings and addresses  
of the several divisions

THE LIBRARY OF THE  
JUL 20 1930  
UNIVERSITY OF ILLINOIS

Reprinted from THE PHILOSOPHICAL REVIEW, Vol. XXXVIII, No. 4, July,  
1929; Vol. XXXIX, No. 2, March, 1930.



L  
s  
a  
p  
c  
a  
a  
p  
a  
e  
v  
t  
n  
c  
g  
l  
o  
e  
p

n  
n  
i  
s

106  
AM  
1929  
cop. 2

Reprinted from the *PHILOSOPHICAL REVIEW*, Vol. XXXVIII, No. 4, July, 1929

THE LIBRARY OF THE  
JUL 20 1929  
UNIVERSITY OF MICHIGAN

## ON THE NOTION OF VALUE.<sup>1</sup>

IN an address such as I have the honor to make before this Association, I assume that it is more appropriate to offer a survey of some broad field of philosophic enquiry than to present a minute and technical analysis of some special problem. I propose accordingly to set forth in rapid and synoptic fashion certain conclusions touching the notion of value to which I have come after some years of reflexion. Few, if any, of these conclusions are new, but I think I can perhaps claim a relative novelty of approach in reaching them, for I came to the study of value through æsthetics, and not, as I believe most men do nowadays, through ethics. And this has been, I should claim, somewhat to my advantage; for literature and art represent a larger and freer attitude towards life than morality, which is inevitably traditional and dogmatic. It has interested me to discover how far one can carry concepts and principles which hold in the sphere of art into the general field of value. Here, of course, I am but a humble follower in the footsteps of Pythagoras, who first gave to the notion of harmony, derived from his studies in music, its generalized ethical meaning. For convenience and clarity I shall divide my paper into sections, indicated by headings.

### I. THE LOCUS OF VALUE.

The first matter to determine, indispensable for the avoidance of misunderstanding, is the metaphysical locus of values. To common sense the inevitable starting point in philosophy, the universe, is divided like Gaul into three parts,—an inner world, an outer

<sup>1</sup> Presidential Address to the Western Division of the American Philosophical Association, University of Cincinnati, Cincinnati, Ohio, March 29, 1929.

world, and a world between; and if we look for instances of value, we seem to find them in all the three parts of the universe. In the outer world they seem to reside in articles of use and consumption, like railroads and bread; in the inner world, within needs and desires; in the world between, among objects which we call beautiful. Unreflective persons, as well as recently some sophisticatedly naive philosophers,<sup>2</sup> accept this apparent location of values as real, even going so far as to ascribe value to physical objects themselves, independent of mind. But the single observation that whenever we seem to find value in an external object we also find that object either serving or capable of serving conscious desire or need shows that the value cannot reside in the object as such. So pervasive a concomitance proves the dependence of value upon desire. It proves that value does not exist in absolute separation from mind.

The possibility remains, however, that value might exist both in the inner and the outer worlds, namely in some sphere which spans them both. Beauty is the palmary example, and I think we can assume that if this is not possible in the case of beauty, it is not possible in any case. For beauty seems to exist both within me who feel beauty, and also out there in the work of art. The beauty of Aphrodite is the beauty that I feel, yet it is she who dwells there in the marble who is beautiful. But once more analysis shatters illusion, for the Aphrodite that is beautiful is a goddess, who, if not made of our mortal flesh, is assuredly not made of stone. As goddess, she belongs to the world of the imagination, not to the physical world, and even the shape of gleaming white within which she seems to dwell, exists only in the mind of the beholder, not in the physical thing. Beauty depends upon the satisfaction of desire through fictions blended with sensuous shapes of color or sound within the mind; and its seeming objectivity is an example of illusory projection, like the illusion that Eva Le Gallienne is Hilda in the *Master Builder* or that the man you see when you look at yourself in the mirror is there behind its surface. Beauty exists no further beyond the mind than sensations; but sensations exist only at the confines of the mind. Far from proving the objectivity of value, or even its neutrality as

<sup>2</sup> E.g., John Laird.



between subject and object, beauty is the best example of its subjectivity, since in the case of beauty the very objects to which value is ascribed are fictions and sensory shapes that have no existence without the mind.

If, therefore, we did not know it in any other way, we should know by some such process of reasoning by exclusion as the above that values belong wholly to the inner world; to the world of mind. Not the bread, but the satisfaction of hunger; not the work of art, but the fulfillment of desire in the imagination, are values; and correspondingly, not the stone that I stumble over, but my stumbling, is evil. Things may be valuable, they are not values. Value is always an experience, never a thing or object. We project value into the external world, and so attribute value to things, just as we project sense qualities there, as if they were themselves colored or sweet or shrill, but the value resides in the mind, even as color and sound and taste reside there. We should, therefore, distinguish between value as an attribute and value as an experience, with the understanding, however, that the experience is primary and the attribute a projected derivative. Hence we should not define value, as Professor R. B. Perry does,<sup>3</sup> as "any object of any interest", but rather as "any interest in any object".

The subjectivity of value receives confirmation from cases of variation of value attributed to objects corresponding to variation in judgment upon them, without any variation in the objects themselves. This is well illustrated by the transvaluation of values wrought in the recognition scenes of the Greek drama, as in *Œdipus*, where the situation of the persons remains the same, while their knowledge of the situation changes. The change of value due to change of judgment may amount to complete annihilation of the value as shown in one of Hardy's *Wessex Tales*, where the husband in the story, having discovered a picture of his dead wife's lover, takes one of the children on his knee and, comparing the child with the photograph, says "Henceforth you are *nothing* to me".

## 2. THE ANALYSIS OF VALUE.

Having established its locus we are ready for an analysis of value. We shall find that value is a fact of exceeding complexity.

<sup>3</sup> *General Theory of Value*, Chapter V.

First, every value depends upon the existence of something variously called appetite, wish, desire, interest,—a fact which some psychologists are loathe to admit, but which they always end by admitting under a new name. Being basic to all experience, this element is difficult to describe; yet we may perhaps venture to characterize it as “felt tendency towards a goal”. Behavioristic descriptions, while adequate to the bodily accompaniments of the fact, characteristically omit the fact itself, unless they introduce it surreptitiously. In man at least there are no blind impulses; every impulse is aware of its goal, of what will satisfy; it is enlightened by definite expectations or ends. Even so elementary an impulse as hunger contains definite expectations regarding its own fulfillment. These expectations are as much a part of desire as the drive behind them. We may therefore distinguish, while we recognize that we cannot separate, two aspects within every wish or desire: impulse, which is the ‘go’, and expectation, which sets the goal.<sup>4</sup> Moreover, every desire contains a conceived or imagined object, because every impulse is concerned with or directed upon some object. Man is not simply hungry, he is hungry for food; he has love or hate for this man or this woman; his desires, and hence his values, are outward looking, and attributed to objects. The only apparent exceptions are the values of imagination, of dream, art, play, and religion, where desire has no object in the real world; but in such cases, desire has nevertheless its object, which we shall call a substitute object,—the image seen in the dream, the imagined baby embodied in the doll, the Goddess Aphrodite which the marble represents, and the like. In these cases, the conceived object and the object coincide, while in most cases they obviously fall apart.

Desire is only the basis of value; value itself does not appear until desire is being satisfied. But satisfaction is not an instantaneous or eternal fact; it is a process in time, a duration, an action. The goal of desire is not the mere possession of an object, but action upon it. Thus it is not food that is sought in hunger, but the eating of the food; in love not the friend, but the conversing with or the caressing of the friend; in the cognitive interest

<sup>4</sup> Compare R. B. Perry's distinction between ‘governing propensity’ and anticipatory response; *op. cit.*, Chapter VII.

not the mere attainment, but the pursuit and the extension, of truth. But furthermore—and this follows from the analysis of desire—satisfaction is never solely the appeasement of a mere instinct, the running down of a drive, but is always, in addition, the fulfillment of an expectation, the reaching of a goal that has been set. This is true even of the most primitive satisfactions of man. The satisfaction of hunger, for example, is not the simple appeasement of an organic craving, but the realization of expectations regarding dining as well. Or, to choose an illustration on a different plane, our enjoyment of a painting is never a mere synthesis of delights in form and color and emotional expression, but is derived also from the fact that the experience meets our expectations, and a failure to meet these will restrict our enjoyment. What is called an ideal or standard is a tissue of such expectations. We may, therefore, distinguish within each satisfaction a component which is the appeasement of the impetus of an impulse, and a component which is the meeting of expectation, the achievement of a set goal. The appeasement of impulse is the focus, as it were, of the satisfaction, but around it lies like a penumbra the fulfillment of expectation. Sometimes one, sometimes another, of these sources of satisfaction predominates.

But value is not a process that arises and maintains itself only in the present of the individual. On the contrary, it brings into operation his entire past. On the surface of man's momentary delights there are projected satisfactions out of the past, so that each satisfaction is no mere surface, but a volume, a thickness, of satisfaction. Every stage in the process of satisfaction leaves a residuum of value which is carried on to enrich the next stage; and each instance of the satisfaction of an impulse revives something of all past instances. In each new love man experiences something of all his former loves, as in every satisfaction of hunger there survives something of the suckling's first delights. Every value contains, therefore, echoes of value out of the past, and itself provides new overtones for new values in the future. A value is a harmonic system, like a tone sounding with all its partials. Through expectation, the imaginative anticipation of satisfaction, we enjoy before we have enjoyed; through memory we enjoy after we have enjoyed; and every joy contains a before and an after of

joy. It follows from the rôle played by imagination in value—by expectation and memory—that value does not pertain to the terminus of the experience, to consummation alone, but to the entire process of desire-seeking-fulfillment as a whole.

Furthermore, every value contains an ingredient of pleasure. Pleasure is not, as hedonists have claimed, identical with value; it is only one aspect of value. Value is the complete experience of satisfying desire with all the complexity which we know that this process involves; it includes pleasure, but cannot be identified with pleasure. You cannot equate a thing to one of its aspects. Besides pleasure, certain organic complexes of sensation, called emotions, are involved in value; but these again are not value. Pleasure is more intimate to value than emotion; for whereas emotion varies according to the kind of desire with which it is associated, pleasure is identical and invariably present in all satisfaction.

In order to make this analysis of values complete, two further points must be considered. First, the social character of values, and, second, the relation of value to the organism in its environmental setting. Values are social in a variety of ways. They are social, in the first place, because the general character of the objects of interest is determined by our fellows. This is obviously true in the case of our higher interests. The prizes or places sought in ambition are fixed in advance for each generation by the preceding generation; that is, for the children by their elders; few of the ideal objects employed in art and in play are invented by those who enjoy them; and we worship the Gods of our fathers. But even the objects of our simpler desires, such as our food and our drink, are socially determined; the oriental has his rice; the American his shredded wheat and apple pie. And the inventor and the artist accept such socially determined objects as the starting-points for their creations. In general, we want and like only the things that other men want and like. But the objects of our desires are not only provided by our fellows, they are themselves 'social objects', in the sense of being the same for all members of a group. We read the same books, compete for the same prizes, worship the same gods, use the same tools, the same language, railway systems, bridges, and roads. We sail the same

seas and welcome the light from the same sun and stars. Our desires arise and are satisfied or frustrated in the same physical environment. The social environment is also the same; members of one family have the same father and mother, and citizens respect the same magistrates and live within a common framework of law and institutional organization. And these social structures have a permanence and an independence relative to the life of the individual, and a determining influence upon his values comparable to that of his physical environment. It follows that not only the objects of our interests but our very interests themselves—the two are correlative—are largely created by what we call society. More precisely stated this means that the specific pattern of our impulses is formed in us by nurse or mother, teacher or companion, or else deliberately acquired after the model set by other members of our group, and always under the control of 'social' objects. Moreover, certain values are social in a special way in that they result from interests whose very objects are the interests of other persons. Unlike the animal which can do everything for himself, man remains even when he grows up like the child, incapable of satisfying his desires without the coöperation of his fellows. Therefore he cannot help being interested in their interests, as promoting or hindering his own. Of outstanding importance is love,—the interest in furthering the interests of other persons, upon which, in the form of community love, much of what is called 'morality' is based. Moreover, by means of the use of a special system of common objects called language, values are communicable. Finally, values are social in the profoundest sense of all because, in so far as they have common objects and a common pattern, they are actually identical with the interests of other men. And when we understand or love each other, and work together to the same end, we become aware, through a unique experience, of the communion and partial overlapping of our minds.

Yet despite their social character, values are always personal. Even though it be our fellows who have created for us the objects of our interests, and have built up in us a structure of habits after the model of their own, the interests and habits themselves are ours. And while the objects of our interests are partly the same, they are never wholly so; for no two men read the same book or

see the same picture quite alike. Again, while we live in a common social environment, belonging perhaps to the same family, club, or nation, our position there is different from that of anyone else; hence the precise color of the values that arise through our interaction with our fellow members is unique. No man, not even a poet, can communicate quite all that is in his mind. Finally, although our values intersect in so far as their objects and pattern are identical, so that it is true to say that we have thus far a common mind and will, a social mind if you choose to call it so, nevertheless the social mind has no existence save as the common part of overlapping minds. The individual is, therefore, the only value center of the group; the group as such has no interest of its own, no mind, no will. Thinkers have made the mistake of supposing that because our minds have a common part, the common part is a mind, and from this mistake have followed errors whose name is legion.

Although I have insisted on the subjectivity of value, that is to say, on its exclusive location in desire, I am far from denying that value has functional relations, on the one hand to the organism, on the other hand to the environment, and that these relations have to be included in any complete account of values. Yet on these points I have personally little to say. We must, of course, think of the organism as tending towards equilibrium, both with relation to its own parts and with relation to the environment. Now our interests, both of lower and higher order, correspond to disturbances of equilibrium in both these respects, and our values correspond to the process of re-establishment of equilibrium. In general I think the equilibrium with relation to the environment has been overstressed by biologically minded students of value; for the organism is in many ways a little world of its own within which, in relative independence of the environment, the balance may be now disturbed and now readjusted. Usually, however, there is a direct functional relation between values and the objects to which they are attributed, the object being the sort of thing that can serve the organism in its tendency toward equilibrium. Thus the value of bread corresponds to a certain chemical composition which makes it fit for food; the value of breathing is a similar function of the atmosphere; even the value of a man or woman



corresponds to that in his character and relation to us which makes him available in the vital process. In general, the relation between value and object corresponds to that between organism and environmental element. Hence, as Mr. Sellars has remarked, values express the 'situation' of the organism. There are, to be sure, certain objects to which value is attributed without, as we may say, directly deserving it; for example, flags or other symbols, and objects of art, like a marble statue, where there is no direct biological relation with the organism. Yet such objects borrow their value from objects which do deserve it, as the flag derives its significance from our country and the Aphrodite her beauty from woman. In relation to ideal objects, however, which are located within the organism rather than in the environment, although their significance too is borrowed, the organism is concerned rather with the inner equilibrium of its own parts, referred to above, than with the equilibrium between inner and outer. In dreaming, play, and art, in the more ideal aspects of religion, and in short throughout the whole sphere of what I have called imagination, the organism is setting its own house in order rather than seeking good relations with its neighbors in the external world. And such acts as suicide and self-sacrifice, through which the organism, instead of maintaining itself, either destroys itself or else pours its energy into another organism, prove that the purely biological point of view regarding values is inadequate, and must be supplemented by the social and personal.

### 3. THE NORMATIVE CHARACTER OF VALUE.

Thus far in my account of values I have seemingly overlooked what some have thought to be most distinctive of them, namely their normative character. Only if man had a single interest, or if they all lay on a level in his mind, would our description be adequate. But in man there is, as Pascal said, *un ordre du cœur*, and upon this order the normative character of values depends. Many values, perhaps most of them in the end, are functions, not only of desire but of choice, for in doing anything a man must refrain from doing something else. Now choice involves, in addition to the alternatives presented, some interest, let us say of higher order, for the sake of which one alternative is preferred to the other.

Just as there is no value apart from desire, so there is no 'relation of betterness' between values except in terms of an interest that compares them. For consider a homely example, my choice of tea against coffee. Such a choice, like all choices, is not between objects as such, but between the values corresponding to the objects. Only first choices can be purely naive and objective; every subsequent choice, and that means practically all adult choices, are between the satisfactions anticipated from the objects. In the example under discussion, choice will be determined either in terms of my interest in a maximum of pleasure or in terms of my interest in health. The tea will be judged to be either more pleasant or more healthful. Or consider the case of the ambitious young man confronted with the alternative of attending his class in night school or of going to see a moving picture. If he decides in favor of night school, his choice will probably be determined either by that interest of higher order which we call ambition, or by the interest which we call duty, which is really love in some one of its forms,—in this case perhaps love of the aged mother he has to support, or love of wife and children.

Any impulse that fits in with an impulse of higher order is a good impulse, while any impulse that conflicts with such an interest is bad. The good is therefore a selected interest, and apart from an interest that selects is meaningless. Even the rejected or 'bad' impulse is still valuable, only not so valuable as the good impulse. The cruel and lascivious act is not evil in itself, but only because of the love that condemns it. If nowhere in the world there was an interest in fine and honorable action, there would also be no such things as foolish and base desires. The sting of the bad impulse is the charm that it keeps despite its badness.

The feeling of 'oughtness', or the judgment that I ought, expresses the compulsion of an interest of higher order in competition with some interest of lower order, which it is trying to bring within its scope. We should never feel that we ought were there no system of impulses operating within us in the direction in which we say we ought to move. To tell me that I ought is either to appeal to such a system, already existing, or else to endeavor to create one. It is, therefore, meaningless to uphold a standard as binding upon people who have no desire for the sort of action

which it proposes, and are incapable of realizing, in the imagination at least, the values which it pictures. A person who advocates a standard for other people must create its validity for them by creating the corresponding desires and values. If he claims for it validity independent of desire, he clearly forgets the only thing that gives it whatever validity it now possesses,—his own passionate advocacy. A standard is a value-picture. The reformer is like the artist who has an unpainted dream of beauty not seen by other men; until he paints his picture, until he creates in other minds a will like his own, with a compulsion in the imagination similar to his own, his ideal remains a mere dream. The theory of eternally valid values leaves no room for creation in the ethical sphere.

There is, therefore, no ought without presuppositions. What I ought to do is what a certain system of my desires wants to do. To speak of an ought in any other sense is meaningless. The fact that the system of desires has been built up in me by other persons—as is notably the case with 'duty'—does not alter the logic of the situation, for such desires are still desires, and my own. In the end, there is nothing that a man so much wants to do as his duty. The moral standards of a group are the formulated and intersecting wills of dominant members of the group; the group itself, having no will of its own, has no standards. But the relation of members of the group one to another is so close that, in order to realize his own desires, each member must coöperate in the realization of the desires of other members. Moreover, partly through native endowment and partly as a result of training, the individual comes to possess love,—the interest in furthering the interests of other members of his group. Moral values are for the most part precisely the values that result from the fulfillment of this interest. What is called conscience is the impetus of this interest in conflict with other interests. The traditional and often anonymous character of many moral standards masks this foundation in values and causes all the difficulties of the novice and the overwise in the study of ethics.

The 'ought', the imperative aspect of values, is then a function of dominant systems of interests in their effort to get control of interests of lower order. These dominant systems are more com-

plex and inclusive than the structures usually called instincts, habits, sentiments, or complexes. They embrace values qualitatively alike, united by memory and comparison, and recognized by the individual as belonging together. Since these systems function as units, they are correctly spoken of as single interests, as popular and literary psychology has always done. Thus, in a man's life there is a single interest—not instinct—of self-preservation, or health-interest; a single major interest called ambition,—the interest in winning a place of dignity and privilege in the social order; a single religious sentiment; a single 'sense of beauty'. Psychology has no more destroyed these motives in conduct by showing that they are compounded out of simpler impulses than physics has destroyed the molecule by showing that it is a constellation of atoms. Indeed, no adequate understanding of human nature is possible unless the molecule of action, as well as its atom and its electron, are taken into account; for man acts as a system rather than as an atom. Hence the biographer, the historian, the novelist, the essayist like Montaigne, and the dramatist, and, I would add, even the philosopher, who views man's conduct in terms of his major interests, can never be supplanted by the psychologist as sources of information regarding man. This is the vindication of so-called literary psychology, held in such contempt by those psychologists who know little of literature.

#### 4. THE CLASSIFICATION OF VALUES.

The following is a suggested list of the major interests and values,—self-preservation or health; comfort, the interest in a maximum of sensuous pleasure; workmanship, the interest in manipulating and transforming things into embodiments of purpose; ambition, the interest in securing a place of consideration and power in the social order; love in its various forms, as friendship, sex-love, family affection, or love of the community; knowledge; play; art; religion. Each of these interests has its own law of functioning, its unique and characteristic standards and norms, its definite outlook upon life, its peculiar morality. There is, for example, the point of view of art, of religion, of health; the 'conscience' of the artist, the workman, the good sport, the friend; there is even the morality of the pleasure-seeker and of the strong,

ambitious man. These interests are, moreover, commonly embodied in institutions. About the religious interest there is built the church; about the scientific interest, science and education; about self-preservation and comfort and ambition, the state and industry; about the æsthetic interest and the interest in workmanship, the arts, fine and useful, with their traditions and techniques; about love, the family and community. These values are, finally, typically invariant in all civilizations.

Some of the most powerful impulses of human nature do not appear in this list, either because they lack the normative character peculiar to the major interests, or because they derive this character from interests which include them in their scope. Thus hunger, despite its overwhelming importance, does not belong here, because there is no food-outlook upon life or food-morality. But there is a hygienic outlook and a morality of health; there is the standpoint of the epicure and that of the pleasure-seeker, and these include the interest in food and determine the morality of eating. The sexual impulse is omitted for a similar reason. There is, of course, a so-called 'sex morality', but that again is not determined by the instinct as such, but by health and love. Moral and economic values, so-called, are also omitted from my list. I have omitted the latter because I would not grant that they are values at all in the strict sense, but only in the attributive sense. For clearly all economic goods get their value from some contribution which they make to my comfort, my health, my ambition, or my sense of the beautiful; there is no economic value as such. As for moral values, I could not give them a place for two reasons, first because, in agreement with the theory which I am expounding, all molecular values are 'moral' in the large sense, since they create standards of conduct and release imperatives; and second because moral values in the limited sense are special values of love or ambition. Morality, so-called, either springs from love of one's community or is merely common prudence.

These values fall into two main groups. First there are the values of 'real' life, which draw their complementary objects from the physical and social environment, and depend for satisfaction upon adaptation to it. This group includes health, comfort, ambition, the interest in workmanship, love, and knowledge. The

second group of values makes use of what I have elsewhere called 'substitute objects', objects not so much of adaptation as of creation, of make-believe rather than of belief, belonging not so much to the 'real' as to the imaginary or 'ideal' world. Here belong play, art, and religion, the substitute objects being respectively the toy, the work of art, and the god. Yet while every value belongs predominantly to one or another of these two groups, it is clear that the two groups interpenetrate. For, if my analysis is correct, there is an imaginative element in all values, and on the other hand each of the ideal values is given a 'local habitation and a name' in some real object. The toy soldier dwells in the real piece of tin, the doll baby in the wax, and the Aphrodite in the marble; the divinity 'which eye hath not seen' is incarnate in the idol, eikon, or holy man. Because of the large imaginative element in history and science, some may doubt the propriety of placing science among the values of real life, but I believe my procedure is right, since in science we try to conform our ideas to a world acknowledged to be objective and real; imagination is not free, as in art, but subject to the control of fact. On the other hand, it must be admitted that religion occupies an exceptional position, for although its object is certainly a creation of the imagination, this object is nevertheless an object of belief rather than of make-believe; hence religion represents an effort to bring the two worlds, of fact and of imagination, together.

It is further characteristic of the major interests that each claims the whole of life for its sphere. Thus there is no act that may not have a bearing upon health, upon comfort, upon ambition, upon religion, or, if one be an artist, upon art. We may compare the moral structure of man with a set of triangles erected upon a common base; the different major interests subtend, as it were, the same elementary acts and impulses, whatever the psychologists may decide to call them. Hence man lives under multiple government, and his moral situation is immensely difficult and complicated. Man has no single morality, no simple conscience.

Is this ethical pluralism the last word? I think not. For self-knowledge, as well as the whole logic of our argument, would prove that proceeding from the basic elementary interests, upon which the major interests with their imperatives and moralities are



founded, there must finally be what, pursuing the geometric analogy already employed, I may call an apical interest, a desire of the mind as a whole. Despite its conflicts and divisions, the self is a single self, conscious of itself as one and acting accordingly. For a man will review his life, take stock of himself, criticize himself, plan out his future; and these activities will be exercised, not for the sake of any one interest, but for the sake of himself as a whole. In the interest of the whole, for the sake of its conservation and growth, a given interest will be inhibited or cultivated, and when cultivated will draw its vitality, not merely from its own energies, but from the energies of the entire system of interests. Personality is not a generic interest, like the libido of Freud, or the 'will to power' of Adler and Hocking, but a 'system' desire. While, like every desire, it has its own specific character, it is nevertheless founded on the rich manifold of the major interests, and so, in the end, upon everything that the mind contains.

##### 5. THE CRITICISM OF VALUES.

This supreme interest is the final court of appeal in the criticism of values. Criticism exists at every level of the stratification of the self, each minor interest being subject to the criticism of the system of which it is a member; even the major interests, as members of the self as a whole, are therefore not exempt; only the supreme interest is exempt, because there is no further point of view from which criticism could proceed. An interest cannot criticize itself, any more than in logic a function can be its own argument.

In the criticism of values several principles are employed. First, there is the principle of success. Of every interest we seek to know how completely it can reach the goal which it has set itself, how fully it can realize the value which it promises. As we have seen, in a human being at least, value is never a matter of immediate feelings merely, but also of the fulfillment of expectations centering around such feelings. Value is relative to the conceived goal of a desire, and varies with the definition of the goal. Sometimes the goal is set too low, but more often too high; for strong desires tend to generate illusions. Hence a critique of values becomes, in large measure, a critique of illusions. The

goals of all interests need forever to be re-defined; even of art, of science, of morality, or of religion, we need to know both what they may properly seek, and how far they can provide what they promise.

If man had only one interest, the test of success or failure would be the sole principle to apply, for all value would spring from that interest, and there would be none other from whose point of view it could be praised or blamed. But since man has many interests, the effects of any one of them upon the others have to be taken into account in judging it. So, for example, the criticism of ambition involves not only the question whether or not it can attain its end, but also its relation to comfort and love. The problem is not what ambition has to say of itself, but what comfort and love have to say of it. Hence other things being equal, an interest has a higher rating when it supports, or can be allied with, other interests, than when it hinders them.

If all interests were on a level, the principles of criticism of value just explained would suffice. But, as we know, the contrary is the case; hence we need a new principle which recognizes the actual hierarchical constitution of the self. The principle receives practical application in a conflict of interests which can be resolved only by the repression of one of them. Here the questions arise, which interest shall give way? When is a loss of value to one interest compensated by a gain of value to another? The obvious answer is, of course, as follows: If the gain accrues to a higher interest, it is a clear gain, and for the sake of a higher interest there is little that will not be sacrificed in the lower interest. Now what we call higher and lower among interests is a function of their relative adequacy to the total self. For if one interest is higher than another, it is preferred to that other, and this preference, if it be aught but relative, must be exercised by an interest which may include both as possible constituents of itself. The comparative rank of the two interests will then be determined by the contribution of each to the value of the inclusive interest. In the end, therefore, comparative rank will be, as I have said, a function of adequacy to the total self. That interest is higher which is a fuller representative of the self as a whole, giving to the whole what the whole wants.

There are three ways in which adequacy to the total self may be achieved: by the inclusiveness of the interest, by its representative scope, and by its ability to exclude the rest of the self and so make of itself the whole self; in brief, by inclusion, by representation, and by exclusion. Each of these can best be explained by the use of illustrations. First, inclusion; other things being equal, beauty is better than sense-pleasure because it includes sense-pleasure and much besides, namely all those factors due to what has been called resonance, the wakening of echoes of value from every corner of the self. Or compare love with crude sensuality. In love, sensuality is contained as an element, but love contains, besides devotion, an imagined perfection, a shared happiness. Or compare a passionate with a sentimental attachment; the latter has the advantage of a richer temporal span, a greater memory thickness, and so provides a value more nearly adequate to the self as a whole. Representation as a source of adequacy is illustrated by the superiority of intellectual over more immediate and naive experiences. For in the universal, which is the concern of the intellect, an aspect of innumerable individual things is vicariously contained, so that he who has understood the universal aspects of any experience has actually gone further in the way of experience than he who has merely multiplied his experiences unreflectingly. Music<sup>5</sup> is another illustration of superiority due to representation; for in the musical experience, when profound, the essence of every wish and desire, of every emotion of joy or sorrow, of triumph or laughter, is contained. The way in which interests may come to be equivalent to the self through exclusion is most clearly seen in those situations where an interest, ordinarily viewed as lower, assumes highest rank. When, for example, we are very hungry nothing has so much value for us as food; or when we are very cold, nothing is so important as being warm. What happens in such cases is the obvious crowding out of all other interests by a single one, which becomes in fact the self, and

<sup>5</sup> Compare Paul Valéry, "Propos et souvenirs", in *REVUE DE FRANCE*, Oct. 1925. "La Musique a pour elle, par son action presque direct sur le système nerveux central, des moyens de produire, et presque à bon compte, toutes les illusions d'une vie complète, toute la fantasmagorie des passions, des événements sensuels, et elle va parfois jusqu'à l'insinuation sinon de l'intelligence, du moins de ses actes."

having become the self, necessarily takes first rank. Comparison with other values is out of the question; since, for the time being, they have ceased to exist; the elemental drive rules in its lonely absoluteness.

#### 6. THE SUPREME VALUE.

A final fundamental problem confronts us, namely, the nature of the value that corresponds to the supreme desire, the desire of the self as a whole for the sake of which all lesser desires are brought to judgment. That there is such a value cannot, I think, be denied. Every person sets upon himself a value, has for himself a value which he feels and knows. He has definite expectations regarding himself; he wishes to be a certain sort of man, just that sort and no other, and when he attains to this, he experiences a satisfaction as a whole, which is his value as a personality. This value is not, however, independent of the values yielded by the major interests. I can possess no value as a person apart from the values which I may achieve, of health, of love, of ambition, of play, and the rest, or ultimately apart from the more elementary desires of which these are constellations. Any success of these is my success, and any failure is my failure. But the value that I have as a person is not a mere sum, but a unique pattern, of such values. Naturally the value which I have for myself is not independent of the value which my group sets upon me; for it is difficult for me to find satisfaction in any activity of which the group disapproves, and those of my interests which the group supports are generally the more fully realized. Yet the appreciation of the group is never a full measure of the values which the individual realizes in his own person, since he has experiences into which other men can never fully penetrate.

Can the pattern of values which constitutes the supreme value of personality be further characterized? The characterization which has come down to us from a tradition as old as Pythagoras is that of a harmony of interests. Today the term 'integration' is more in use.

As traditionally conceived, harmony is at once a quality and a structure of experience. As a structure, it consists of such a functioning of interests within the mind that they support and promote one another; as a quality of experience, it is the resultant

value of the coöperating interests. While no value by itself apart from the coöperation of the interests upon which it is founded, it has nevertheless its own distinctive quality which he who lives it feels and knows. It exists when ambition and community-love so work together that a man's place in society depends upon his devotion to his group; when his family life is so ordered that it supports and promotes success; when fine art is also useful art, a joy to the maker and the user; when pleasures are taken in such a way as to fortify health; when the service of God is fused with the service of man. So constructed, the good life is the beautiful life, beautiful like a work of art where each element of sound or color or shape or meaning faultlessly conspires with every other, without waste, irrelevance, or conflict, to the chosen end.

Evident as is the good of a life built in so musical, or, as Socrates would say, in so mathematical a fashion,<sup>6</sup> there are reasons why it can rarely if ever be attained, and why, if the supreme good must be a practicable good, the two cannot be identified. First there is the difficulty arising out of the need for repression of such impulses as will not fit into the harmonious design. Our newer knowledge of human nature has shown that even when repressed these interests are not destroyed, but persist in the background of the mind creating little eddies of discontent in the main stream of happy consciousness. One cannot do with an interest what the painter can do with a spot of color that does not 'belong',—erase it, for once in the mind it is there forever. And no process of 'sublimation' can win all the energy of a rejected interest for the service of selected desires.

A no less insuperable difficulty arises out of the claim to absoluteness of our major interests.<sup>7</sup> Each one of these, as we have seen, demands the whole of life for its sphere. Love in each of its forms, in giving all, claims all, from the *Dulce et decorum est pro patria mori* to the utterance of Éloise to Abélard, "I call God to witness, if Augustus, ruling over the whole world, were to deem me worthy of the honor of marriage, and to confirm the whole world to me, to be ruled by me forever, dearer to me and of greater dignity would it seem to be called thy strumpet than his

<sup>6</sup> Gorgias, 508.

<sup>7</sup> Cf. Hocking: *Human Nature and its Re-making*, p. 35.

empress". Duty claims all, as expressed in Kant's phrase, "Nothing can possibly be conceived in the world or even out of it, which can be called good without qualification, except a good will". Religion equally, with its imperious message, "Whatsoever ye do, whether ye eat or drink, do all for the glory of God", or more gently, *In la sua voluntade e nostra pace*. On the other hand, does not science bid us renounce all wishful illusions for the sake of the truth of adjustment to the physical, empirical world? For ambition, we have the words of Nietzsche, *Was ist gut?—Alles was das Gefühl der Macht, den Willen zur Macht, die Macht selbst im Menschen erhöht*. Even pleasure and comfort have their imperatives, as the long tradition of hedonism attests; and finally there is the claim of art. Besides the conflicts that arise through the absolute claims of each of the major interests, there are the special conflicts arising out of the oppositions so well known to history and literature, of one interest with another, of ambition with love, of science with religion, of art with morality. These oppositions can be reconciled up to a certain point, but beyond there is conflict unappeasable. Peace can be made only through sacrifice, but sacrifice means a rift in the harmony somewhere.

Does it follow from these facts that we must abandon the conception of harmony as the practicable good? I think not. What does follow is the necessity for a re-interpretation of the notion of harmony. In ethical studies hitherto, harmony has been interpreted too exclusively in the classical, or, I had better say, neo-classical sense; what we need is a more romantic, a more tragic interpretation, which shall give recognition to the values issuing from contrast and conflict. This 'difficult beauty' as Bosanquet<sup>8</sup> has called it—which is the beauty of humor and tragedy—and not the 'easy' beauty of the moralists, rather too simple-minded for the most part, is the sole beauty and harmony that most lives can possess.

Here now is a case where, I believe, ethics can receive light from æsthetics. In the field of art, there are three broad types of harmony. The first, often identified with harmony, is based on the well-known principle of 'identity in difference' or agreement; it is illustrated by the theme and variations in music; by color har-

<sup>8</sup> *Three Lectures on Æsthetics*.



mony when constructed out of varying, but neighboring tints and brightnesses of a single hue, or of closely related hues; by Gothic architecture, with its pervasive concordance of arch, window, and doorway, in the pointed style. This, I believe, is the sort of harmony that moralists usually have in mind when they speak of harmony,—harmony through agreement, alliance, identity of purpose. But in art there are two other quite distinct types, harmony through contrast and harmony through the evolution of meaning through opposition. A color scheme based on the contrast of the complementary colors, as red and green or yellow and blue, or the classic architectural balance of beam and support, column and pediment, are simple illustrations of the former; for the latter, the simplest examples are the melody achieving unity through the opposition of tonic and dominant, or the tragic story or drama working out some new meaning through struggle. And each of these latter types of harmony has a significance for life equal to that of the first.<sup>9</sup>

The significance of contrast in life is not difficult to illustrate and is, of course, well-known. Vivid moments are more intense because of the relatively monotonous background of daily affairs from which they stand out like peaks rising in a plane. The calm joys of domesticity gain added worth through their contrast with the more boisterous values of struggle in the 'world'; play could never have the meaning which it possesses for the grown man if, like the child, he spent all his time in it; nor could religion retain its significance for the contemporary mind without its contrast with science. If the advocates of unity and homogeneity in social life and institutions had their way, the world might gain in peace, but would lose in interest,—if we had one language, one class, one nation, instead of the many we have. I once asked a Russian of rather impartial attitude for his final estimate of the late Revolution, and he answered: Gross evils have been remedied, but on the whole, life in Russia today is poorer, for it lacks the contrasts which gave it vividness. And, in general, vividly various elements, whether social classes, nationalities, or personalities, make up a more valuable social world than a simply homogeneous one. And, correspondingly, the most significant personalities have usually

<sup>9</sup> Cf. my *Analysis of Art*, Chapter II.

been notable for their sharply contrasting interests. In the end, it may be true that life is better because of death.

Der Mensch bedarf in seinem engen Wesen  
Der doppelten Empfindung, Lieb und Hass,  
Bedarf er nicht der Nacht als wie des Tages,  
Des Schlafens wie des Wachens? <sup>10</sup>

In an æsthetic whole, balance and not mere contrast of opposites is desirable, for otherwise there is an incompleteness which is felt as ugliness. But whereas in art the artist is able to control his medium and establish equilibrium without great difficulty, to do so in life is almost impossible, because of the refractoriness of the material of instincts, habits, interests, and circumstances, with which he has to work; and also because of the tendency of each interest to make absolute claims and go to extremes. The Hegelian dialectic of Thesis and Antithesis was, therefore, a valid description of human nature; only, as Royce pointed out, the dialectic is based not on logic, but on the mechanism of passion. The æsthetic balance, so finely illustrated in the arts of the sculptor and architect, is an ideal, not a reality. Instead of a balance of values there is likely to be mere conflict and incompleteness.

Once more we seem to meet an insuperable difficulty in applying the notion of harmony to life itself, but again only because harmony is interpreted in a narrow way. The æsthetic value of humor and tragedy in the arts proves that conflict is not inconsistent with harmony, nay that it may even be a condition for harmony of a certain kind. This insight we owe to Hegel, who saw that a collision of interests due to the claim of each to absoluteness might be the cause of a growth of value, even when suffering and disaster were entailed. Before Hegel, Goethe located the ground of the conflict in what he called *Das dæmonische Element*.

To be sure, as A. C. Bradley has observed,<sup>11</sup> tragedy always involves waste, for one of the conflicting interests must meet defeat or both must compromise, which is a partial defeat for each. Yet even such loss may promote growth of value. First, some of the energy that belonged to the defeated purpose is transferred to

<sup>10</sup> *Tasso*, IV. 2.

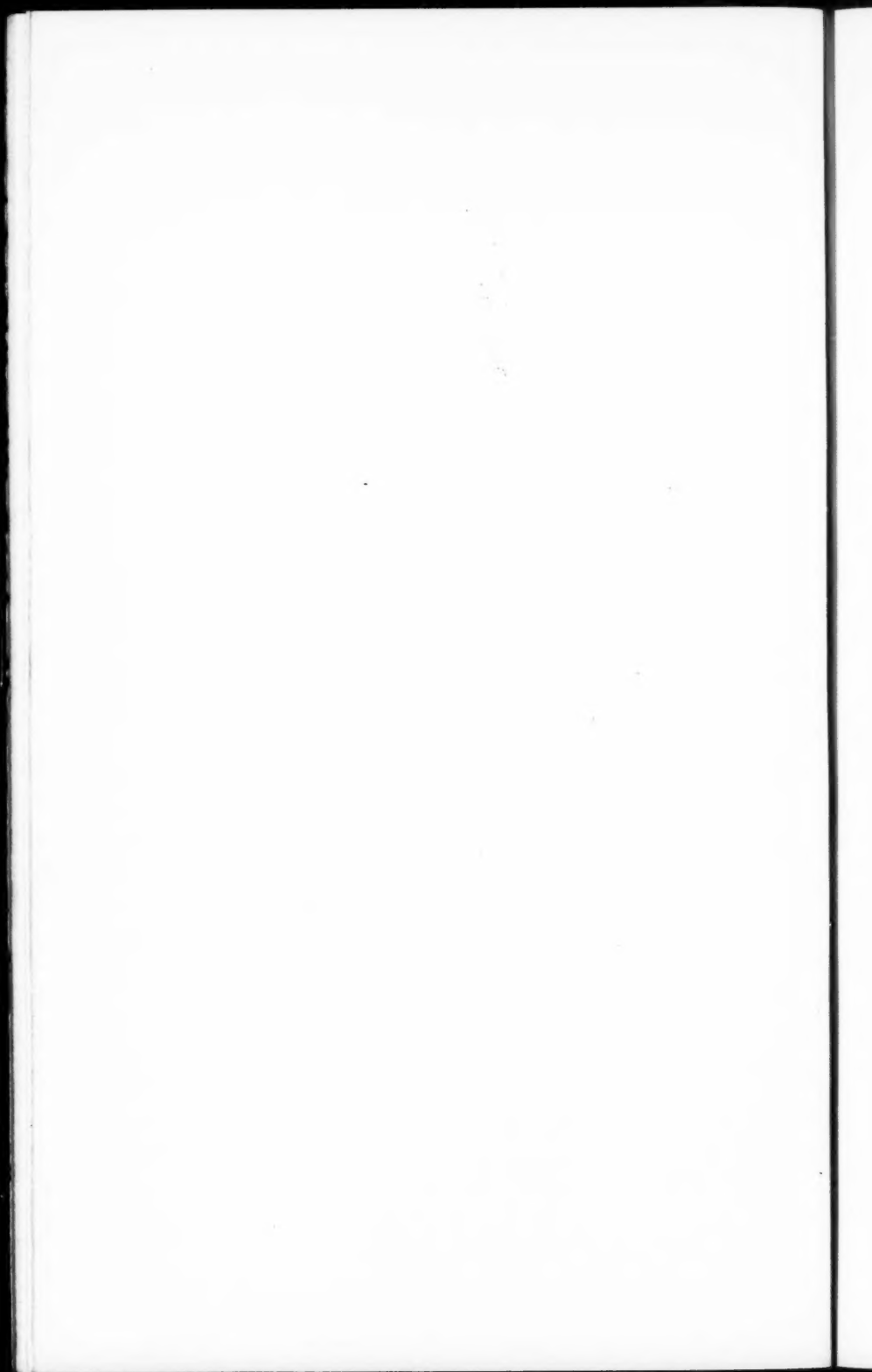
<sup>11</sup> *Shakespearean Tragedy*, Chapter I.

the one that is victorious. This transference is, I have insisted, never total, and every defeated purpose leaves a scar that cannot be healed. Nevertheless, so long as the gain accrues to a 'higher interest', there is, as we have seen, a gain on the whole, that is, for the whole. It is improbable that any human interest can reach its profoundest development without suffering; we put our all upon what we have left. This man's love for his work in the world, that man's love for his art, a certain woman's love for her child or lover, a man's love for his wife or mistress, has been given an intensity that it could never have had except for some renunciation or sorrow. But that is not the only creative influence of frustration. We recognize that not wholly, yet for the most part, the ideal values of art and of religion have their ground in pain. What is lost to an interest rooted in reality is gained for the imagination and for faith.

There are, it is true, some lives that have the radiant and symmetric harmony of a star. But for most men the ultimate value is some tragic or comic victory which finds expression in a mood of resignation, defiance, or humor, akin to a melody of Mozart or Beethoven. For all men the ultimate value and hence the categorical imperative is, in its complete essence, so personal that it is mystical.

DEWITT H. PARKER.

UNIVERSITY OF MICHIGAN.



## DRAMA AS A COSMIC CATEGORY.\*

### I.

WHEN Thales first spoke of water as the *archê* of all that is he inaugurated the most daring and dangerously fruitful of the great adventures of human thought. His was the initial abstraction of substance from phenomenon, of element from functioning organism, of a natural world from its history. He had asserted that things are not what they seem, and indeed are in no penetrating sense things, but that instead they are quanta of the undifferentiated One-in-Principle which alone has title to the name of Being. With his mortal eyes wide open to the perpetual variegation of earth and sea and sky and with his days telling out the suites of human experience, intricate with veering direction and kaleidoscopic with temperament, he yet could assert that all this is but phantasm, like a film of illusion wafted above some pool of Reality, itself the deep and the sustaining. There is a One, he was saying, central, seated, enduring, and the Many of the senses and of the years are but its insubstantial shows.

That the *archê* of Thales should have been a *stoicheion*, this One-in-Principle a substantial Element, is of secondary consequence. Circumstances such as are hinted by Aristotle no doubt led him to the selection of the fathering Waters as his image of the all-generating substance, and we may fairly assume that it was this direction of his speculative genius that clamped upon the

\* The presidential address to the Pacific division of the American Philosophical Association at Los Angeles, December 28, 1929.

Occident the conception of brute Matter and its Mechanics as the surest key to the understanding of what man may *observe*,—even if not wholly of what man may *be*; for Thales is surely the prime counsellor of Materialism and Mechanism as orders of thought. Certainly this selection of a physical Element as that which could be the *archê* has been vastly determinative historically, having for its consequence nothing less than the entire upbuilding of our conception of the atomic construction of the physical Reality. Nevertheless, as a feat of intellection and a plat of mind's adventure it has been wholly less of moment than the more bladelike achievement of a thought that would wholly sheer Matter from Form, Substance from Character, Force from Action, and would erect the prior members of this series into a material and forceful substance which could be the ground and reality of *all* forms and characters and events. Forth from this conception was to spring the idea of *Nature* as over against History or Destiny,—the idea of *the Physis*, as the Greeks named it, to which five and twenty centuries, with a labor which is still infant, have been giving its definition; and forth from it as consequence was to grow a whole world of active convictions to which we give the title of Natural Science and the honor of more than one high philosophic altar. Certainly the work which Thales inaugurated bulks huge in our affairs; it has created no less a thing than this same Natural Science, manner and content; it has erected into independent solidity an object called Nature, domineering over major areas of the mind's understandings, and making essential subjects of our lives; until today the whole intellectual world of the Occident is its creature, as surely we must see can we but make the abstraction from our cultural moment which will give its perspectives. And this being our case, may we at all doubt that herein is a noble subject of inquiry, and one imperative upon each who would hold himself true to the quest of truth? Was Thales just in his inspiration? And the height of our conclusions, drawn in his mode and fortified by a veritable intoxication of achievement, are they also justified,—not for what they have done, but as measures of the world? It is the question to which philosophy unrelentingly returns.

Let us ask it again, there at the source. A man of Miletus says



of the rocks that they are water, and of his hearth-fire that it is water, and of his mind's thought that it is water. We know very well that it is not primarily of Nile and Maeander that he is thinking, nor of the fruitfulness that springs from earth's breast when wetted from the heavens, nor of the life that seems self-generative in the slimes of the sea's margins, nor of the moist as the fecund element in the seeds of all things. Such images are for the expositor, and Thales could only have known them as images. What was foundational is that he dared deny his eyes and ears and all the senses of his moving body in favor of a thought so leaping that it could proclaim not only the sense-world but also the living-world as phantasmagorical, and over against it, underlying it and creating it, could set a One having no second attribute to its own perdurability. To say that the prerogative of *being*, that the genuineness of *existence*, is *subsensible*, *subexperiential*, something that is *apart from* the actuality of action as life exhibits action, this is a perversion of our directly given world that is indeed colossal, and it was this that makes Thales the great Revolutionist of Western Intelligence. Men before his day had made observations and had devised inventions; they had scored and tallied the motions of the stars and had consulted the heavens with number; they had geometrized the land and had laid gauges to the waters, and they had medicined their own bodies with understanding of nature's therapeutic gifts. But all this was empirical and practic in character, and in no true sense epistemological; it was superior perhaps to technic but inferior to theory. It is only with Thales that *science*, as we conceive it, first becomes real; it is only with him that science appears as something more than knowledge, and takes to itself the authority of a wisdom and a philosophy. And this character it owes then and maintains on into our own day fundamentally because it does make that vast diremption of our world into a One and a Many, into a *Physis* and an Experience, which there at the head of our thought Thales proclaims.

What is here being said is not to be understood with exaggeration. The division of the world which appears with Thales is in a certain bearing hardly more than a variant upon that more ancient one which seems to exist even in the subhuman world, among the animals, namely, of what is *outer* as over against what is

*inner*, of what *appears*, auspiciously or mischievously, as distinguished from what *lurks behind* appearances, and forms as it were the ambushing reality. We have all observed the inquisitive or critical nostrils of hound and horse or the cock-eye suspicion of the barnyard fowl, and we may have reflected that even here, where intelligence is less than human, there is an obvious awareness of the *double entente* which pervades sensible experience, and permits sense to contradict sense and inculcates the deceptive arts of feigning and ruse. Illusion is indeed born of desires the most primitive and of appetites the most animal, as the East has long since set forth, so that we might fairly conceive that our bodies are formed but that they may lie to us, and mislead us. Nevertheless, to say all this is to say no more than do those psychologists who make of the webs of sense-deception the garment of their science, putting all on behavior to the soul's extinguishment. As philosophers we must probe deeper; and I think that something is already added yet in the animal world, where no man who has known his dog's devotion can doubt for a moment that this is directed to something which for the creature himself is more than bodily; it is not the man's pounds of flesh that the dog loves, but his master's soul, so that there is something of idolatry in the poor beast's deep-set faith. I like the old name *Fido* just because it does bring one up with the mainly unexplored fact that there is an epistemology of the affections no less than epistemologies of the senses and of the intellect, and that this affective epistemology (to which religions give form) is as keen after realities as may be any that is born of the externalities of embodiment. Love and its kindred, also, are among the guardians of the Portal of Truth.

As with the animals, so with all men who are to the Greeks barbarians, this distinction of *outer* from *inner* is vivid and vital. It forms itself with every conscious metaphor; it locks into every ambiguity, not alone of expression but even more of thought; and it issues as a mode of intelligence in the colorful and imperative world of mythic conceptions where image and motive shape reason into drama, for which no account less than reality's own tuition can suffice. When delivered into form—that is, into that mode of learning which we of the Western World call 'lore'—this perception of deep duplicity invariably takes on the mode of

an ascription to the inner of motives and passions and wisdoms such as our own—of a whole psychology, indeed, if the present-day practitioners of this science will permit so oldfashioned an interpretation. It creates, therefore, very readily, images of a world, and of a world which is a self or a play of selves as masked by the displays of Nature. Now this certainly is a dualism, though of sense and *psyche*, of mask and actor, rather than of a One-in-Principle as against a Many-in-Show; it is a world of which action rather than substance is the stuff and of which drama alone can expose the causal nexus. But Thales conceived something radically different from such a psychical dualism, when he laid down his doctrine of the *archê*, and it is within the tradition of Thales that the Occident has shaped that whole intellectual course which has discovered for us Science.

The history of this Science forms a chapter in our thinking which is singularly straightforward and consistent. Within three generations after Thales the conception of the *Physis* had been refined of any mythopoetic taint and stood forth, in classical purity, essentially as we possess it today. In essence the Greek idea of the *Physis* is what we mean by *Nature* when we speak of Nature purely from the scientific standpoint and as an object of investigation, that is, as a structural world over against a phenomenological content. Such a scientific Nature, strictly the physical, is abysmically divided from that romantic resort for the man-wearied which Nature means for those sentimentalists who put it idyllically in antithesis to the domains of civilization or set it apart for poetic seclusions, bucolic or melancholy. Here, indeed, is a confusion we are all too wont to overlook, somehow conceding to the physical Idol, which can be no more than the bony structure of things material, all the suavities and sentiments of a cult that by every right of derivation pertains wholly to *Terra Magna Mater Deorum* and her throng of nymphan theophanies. In brief, we confuse the Skeleton, with the scientist's 'Nature' really is, with some object of our sensuous indulgence, hanging upon the former the embroidered sentiments inspired by the latter, as if to make of the bones a deity.

It is to escape this confusion that I would insist upon the classic *Physis*, which designates more clearly that which alone can be

of concern to science. In image the *Physis* is, first of all, astro-nomic, and therefore cosmic. The span of the stars is its measure and their circlings its period; as to this there can be no mistake from the hour when the Milesians opened the first portals of physical science on into our own time; our physics, not otherwise than Franklin's electricity, has been brought down to earth from heaven-flown kites; our science is still as to its frame a science of the Cosmos; and the cosmos of itself is no more nor less than the Star-embracing Whole. Nevertheless, and again from the Milesian beginnings, the starry heaven is only the *outer* and the phenomenal; the *inner* and real is of the *archai*, and none that is *archê* is other than element. This is the conception upon which I have dwelt as Thales' greater originality, for it is this fundamentally that has given to the *Physis* its conceptual independence, providing as it were the bonding of the structure. Mechanism, in order that it may be defined at all, demands both the platting of a field of operations and the marshalling of regimented forces, and it is as the Machine that the *Physis* almost from its first conception takes form; the idea of element and its transformation appears with Thales, the idea of law of motion with Anaximander, the idea of force with Anaximenes, the idea of cosmos and measure with Pythagoras, of atomic comminution and the multiplicity of star-cluster worlds with Democritus; and in all of them central is the conception of the conservation of matter and force as over against the ephemeral variations of phenomenal forms. Completely this is the *Physis*, in its classic simplicity. It composes of three factors: the star-set expanses which define what we may term a major anatomy of physical Nature; the atomic webs which give their account of an histology; and the reciprocal exemplification in the chartings of the structures of the one of the chartings of the structures of the other—first cosmos then atom, each displaying perpetual transformations of the one self-conserving energy—, which we may count as its functioning. Star, atom, motion, of these it was constituted for the Greeks; of these it is constituted for us.

## II.

What the later centuries have added to the Grecian image of the World-Machine has been little more than the refining-out of its

implied concepts and the truly vast extension of its applications. The *Physis* appears as an Idea, but the industry of the years has given to it such a body of exemplary facts—facts astronomical, physical, chemical, biological,—that it is no longer merely an Idea, but is now rather an Idol, with all the materials of cult gathered to its service. It is this richness of practical addition which sometimes blurs our recognition that our Science is not at heart the very recent thing we are tempted to proclaim it. Nevertheless, there is a truth in acknowledging that the classical height of the conception of it belongs to the age of Newton, and that it is under the influence of his thought that the image of the Cosmic Machine stands forth in its most convincing self-completion. No doubt, this is due to the fact that Newton's is the first physics to make a clear abstraction of the idea of space from the idea of material substance, and of the conception of time from the conception of motion. For to the Greeks space was never quite freed from a locative and substantial thinghood; space formed a bastard sort of matter, as Plato remarks; while matter itself was but the crystalline structure with which a geometer might define his spaces. As to time, this was no Grecian form at all, save as illusion,—being merely the vain effort of the arrow to escape position, of Achilles to overtake the tortoise, its whole meaning brought to naught by the enveloping cycles with which Number tells out the orbits of phenomena. Spengler is correct in saying that Hellenic thought is essentially in spatial dimensions; each of its realities (and I would hardly exclude Plato's own Ideas) when brought into the focus reveals itself as a bas-relief, tense with dramatic suggestion, possibly, but never truly an action. The Cosmos itself, in its antique mode, becomes no more than the pictured burden of a pediment, like the still urn of Keats, designed to "tease us out of thought as doth eternity". But with Newton, ghostly as it is, a kind of action is brought into the drama, or perchance we should say that the Newtonian Universe converts into a Titanic toy, whereof the gamingboard is Absolute Space and the counts are called to Absolute Time, whilst athwart the charted expanses Metric Forces hurl and recoil to the thunderous pieces which are Planets, Suns, and Galaxies. As it were by a gesture of magnificent prestidigitation Newton sets going the Machine within its

vacuum; the infinity of extension is his cabinet, eternal duration is the curtain which he draws, and lo, within the arcanum wheels within wheels outblaze Ezekiel's vision! But of the meaning of this apocalypse none may speak; even the mind of the magician is consumed within it.

I cannot think that the advent into physics of theories of relativity, tying space and time into the one moving complex, has done more than consistently complete that sketch of the *Physis* begun with Thales. Philosophers have long been familiar with the notion that time is to be best conceived as one of the dimensions of experience; and from certain quite definite psychological observations they have very well understood that duration and spatial expansion are reciprocals wherever motion is involved, temporal moments and spatial positions varying in one complexity of pattern; they have understood also how time may be regarded as the generator of all space, or, to put it oppositely, how space must mainly be thought as the illusion of time—as time's fume, its mirrorings, blown foams of its beating waves; and finally they have recognized that there are in every living unity many disparate *times* interpenetrating, each conveying its own before-and-after and each transacting a different business with a Now that seems to be ubiquitous even if it be not wholly metaphysical; every such *time* carries its own world, so that here is a doctrine of worlds interpenetrating, whether they be physical, whether they be spiritual, with no more of reclusion than rocks have for sylphs or atoms for æther. Relativity, therefore, to the philosopher arouses mainly the interest that attaches to another and apt application of what is already a received mode of thinking,—an application which in this case certainly does remove a gigantesque awkwardness; for in the Newtonian scheme it is obvious that only as by histrionic artifice can Time and Space be commanded to stand still while the Forces contend within the Void. The Theory of Relativity brings back to the *Physis*, and down into the very substance of it, those Forms without which it could not be even a mechanical mockery of Experience; so that here we see it, whether as Dance of Stars, or Dance of Atoms, or of Numbers the Dance, as once more a self-complete Time-Space-Number image of Light. Only—and here is our point—this all-reflecting light, this radiant

energy which is the substance of reality, is once more an *archê*, a One generating the Many of the *Physis*. For Thales the element was Water; for us it is exemplified by the Luminous; but we are still in the School of the Milesians.

The Theory of Relativity does for us, then, one very valuable thing. It puts the *Physis* back into the class of thinkable worlds, such that itself can be its own plenum; and therefore it makes the World conceivable as an *Action*; the *gaucherie* goes out of the Machine which now becomes not a *thing*, but a *deed*,—and this is all gain. Thereunto the Quantum Theory appears to add another important asset, namely, the possibility of re-introducing the idea of *causality* in the only sense in which cause may be significant, which is as *dramatic causality*. When causes are *archai* or when they are forces they have no home-coming power; they are concerned only with transformation, and that means with magic and its phantasms, with no great virtue added thereto because the spells happen to take the form of equations instead of abracadabras. But when causes are wills and motives and carry that sense of consequence which is actually capable of moving men, when they become creative and directive and turn obstacles and overleap barriers, then they are intelligible, and the motion which they define begins to live with argument, and to become drama. Whether my notion be correct (where theory is so new) I cannot say, but this seems to me to be precisely the conception which the Quantum Theory is preparing to evoke; it calls forth a *Physis* which is not only an action, but which in structure is surely a *dramatic action*, having causes in the directive sense, as leading, event after event, *toward* some outcome. When, as for the Quantum Theory is the case, the basic formula (defying axioms of quantity) must employ numbers which are not measuring-numbers, but vary with the order of their application, then we have installed a new concept into mathematics, a concept of *dramatic numbers*; and we have thereby passed from a quantitative *Physis* on to a Creative Nature. "The insubstantial pageant of space, time and matter crumbling into grains of action", is Dr. Eddington's picturesque phrase, to which there is but the one codicil, that these grains of action when again designed into a pattern will follow the form of an Action that must be more than physical.



But if the Theory of Relativity thus permits us to conceive of the *Physis* as an Action, and if the Quantum Theory gives to this action the necessity of Direction and that meaning which is in the truer idea of Cause, is there yet a third reconstituent of our image of Nature to be inferred from Professor Millikan's proposal of atom-creating energies, as operative within the darks of interstellar spaces? I confess that this seems to me its indication. For to the Greeks change is the world's illusion, time but a moving image of eternity. To recent moderns the evolutions of the stars are but as the death-struggles of a Universe resolving into its abysmal cold,—all motion downward, into some unredeemable night. But neither of these conceptions really carries sense; they mean weariness of mind, rather than conviction. So that it is like sudden refreshment to come upon an insight which can say of the World that it is *in the making*, and of creation that *this* is its day. Possibly Professor Millikan's theory may mean less than this, but if it do not, then already we have from the physicist one more transcension of his own science; for assuredly creation, however its acts may be told and numbered, is not to be named through quantity but only through the plot of the Playwright, for whom the action is an expression. Yes, the flights of our physics and of our astronomy, like those of the daring aviator, seem to be approaching their ceiling, with above them reaches which it may yet be for some metaphysic to explore.

This much we may safely affirm. The vision of the *Physis* which inaugurates with Thales has in our own day been brought to such parlous completion that it is on the verge of transfiguration. Greek science in its latter days was very consciously modest, and kept ever before it the Platonic admonition that its one affair is to "save the phenomena", not as probing their metaphysical recesses, but only as marshalling their order through images. The astronomer, the Ptolemaists were saying, may by epicycles and eccentricities describe the wanderings of the errant stars and predict their recurrences within the constellated houses of the heavens, but let none think because men may thus in their fashion save the celestial phenomena that thereby they have gained penetration into the reality of the heavenly bodies or the being of those eternal gods of which stars are the theophanies. "The gods", says

Proclus, "of a certainty have a surer judgment; but for us it is enough to attain to approximations, for we are but men . . . to the outcome that we speak according to the appearance, and in a manner resembling fables." In our most recent day, Dr. Eddington is saying precisely the same thing, of our astronomy and of our physics, and hence also of our entire conception of Nature.

### III.

Within the century which saw the achievement of Thales there appeared the treatise of Parmenides, "Concerning the *Physis*", Whether or no it be as directly ancestral of a great movement in philosophic thought as is that of Thales, this work is, no less than the Milesian's, symbolic of such a movement: one that gives, as it were, on down into modern times the obverse of the inscription designed by Science; it is a coining out of a similar metal, but is clear in its own pattern. The speaking images of the physical sciences have been mechanical devices, charts and graphs, measures and mathematical formulæ, and these have laid out the designs of scientific reason and understanding. But there is another instrument of expression which is capable of system and subtlety, the instrument of language, and when the Eleatics devised dialectic they were giving to reason a second intention, which in the run of the centuries was to lord it over most of the modes of utterance which European thought was to assume. Frequently, I suspect, we are not keenly aware of it, but hardly more than a natural pause in the presence of the bound volumes of a library of philosophy should be necessary in order that flooding over us may come our understanding that, all told, this vast abstraction which the thinkers of Europe have made from Europe's experience of the world is linguistic in all its art; it is a mode of communicating a something of experience that might not otherwise be conveyed, but which is just for that beset with peril to a mind that should take it all too exclusively. Dialectic is doubtless the subtlest of the instruments of thought; perhaps, therefore, that one most to be scrutinized.

Parmenides divides his work into two parts. The one part is for him who is gifted with understanding, and its subject is Truth. The other is for the man who must follow his senses, and its

subject is Opinion, as concerning the constructions of sensible objects. It is this latter part which we should say deals with the subject-matters of science, with the nature of the stars and the forms of those things which are perceived as in space. There is, says Parmenides, an order in such appearances, though actually they are illusory and their whole world no more than an hallucination of the intelligence; they are *phenomena*, in the very strict meaning, as being *insubstantial*; and Parmenides shows a fine contempt for the mind that can feed only upon such illusion. Where thought possesses metal to sustain it, there, he intimates, a better intelligence may thrive, one directed first and last, alpha and omega, to Truth itself, pure, untouched by delusion; and there this mind will perceive that Being is, and can be, but one and all-existent—changeless, full and complete, transcending even the *archai*, which themselves sink down into the world of appearances. Truth is transcendental of experience; this Parmenides is saying, thereby laying the corners of all the houses of European conceptualism.

Were there the least trace of its having been so received, we might suspect that this Eleatic poem, reducing as it does all science to foolery and all understanding to a fakir's contemplative regard of Nothing, had been put forth as a shrewd satire. But such an hypothesis has no support from the commentators, and we may the better credit the seriousness of Parmenides when we perceive in our own time its duplication. The Hegelians of the Left, with precisely the same type of dialectical ascent, reduce Experience, and indeed Conceivability, to a play of contradictory Appearances, and proclaim that there can be no Reality, save some Absolute which so transcends the worlds that we can think that these latter are wiped out, deluged in the floods of Its oblivion. The high abstractions which top the ascents dissolve into the Empty.

In this, however, is a lesson rather than any cause for hasty condemnation. Just as the mechanical metaphysics of the *Physis* becomes absurd so soon as it pictures no more than the Machine buzzing in a vacuum, so the dialectical metaphysics of the conceptualists is reduced to absurdity by its own wordy efforts to kick loose from experience with no better leverage than is afforded by bootstraps. The Eleatics for the Greeks and the Ab-

solutists for the Moderns, so soon as they have zoomed free into their element, perform superbly mid-air, but their only terminus is to vanish in the cloud. Nevertheless, for the lesser flights their art has given us notable wisdom. I am thinking of Spinoza in his brave, still pilgrimage up the Ladder of Essences into the haven of clarification; I am thinking of Kant, coursing sure into his grasp of the central fact that the Forms of our Experience are the determinants of our understandings of any worlds of which we may be possessed, and that the structure of Mind is in a truly architectural sense the plan of Creation; I am thinking, too, of Bergson's wise admonition that we *must* rise above in order even to live within our universe, and of his keen insistence that the One may be, after all, but just this ascension, while the Many is the vision of reality which it yields to our intuition. But most of all I am thinking of Plato, who is surely lord in the king-archon's court, perceiving clearly that he who climbs by dialectic attains to wisdom only when concepts are transformed into such Ideas as are creative essences, and who is content never to leave his exposition save it arrive to some myth of transfiguration where truth takes on the vesture of drama and of life. It is Plato, first and most, who makes Truth epic and endows thought with cosmic magnificence.

In all this conceptualist and idealist movement, European philosophy has added a corrective to the physical modes, and it is a corrective made essentially necessary by the heavy emphases laid upon the physical. Yet for the very reason that the philosophy of the *Physis* has been radical, the forms of conceptualism have themselves tended to pass into extremes. The *Physis* (I have remarked) reduces Nature to a skeleton, mechanic in all its attributes. Analogously, conceptualism has repeatedly drafted a schematism and called it a Mind. The systems of categories, the ladders of essences, the moments of mounting dialectic, have all been drawn up *out of*, have been abstracted *from*, mind's life, and then tagged off as its spiritual image,—as if the fisherman's net, spread out on the sands with its sorry burden, could in sooth be the likeness of the rich and moving life of the sea. Again we have but a skeleton, not now the grotesquely puppeting structure of the physical machine, but webby sections glassed and diagrammed.

Reality and the life of reality flee us here no less than there, and we turn unconvinced,—something wrong with the instrument, everything wrong with the major conclusion. Ours is not *that* sort of world.

Greatly, however, the idealisms have performed one enduring service. The whole set of human values, *humanity* indeed, they have lifted seatedly into the thrones of realities. It is for these that the *Physis* found and finds no place; and hardly had it been limned by Thales and his school before other schools were arising to proclaim the blank defect. The Machine-World has no opening for mind to enter in; Mind, therefore, must create its own World; and if this have been unreceptive of the *Physis* it is surely because the *Physis* first had abandoned mind as a waif in the cosmic cold. Oftentimes we are bade to stand bowed before some quantitative augustness of Nature's bulk; what a meaningless thing is Man, we are to feel, in presence of the many-ciphered dimensions of That of which there is more and more! Our little earth, our little sun, our forlorn galaxy, what are they in the bobbing masses of the physical All! And our years in its Eternities! . . . But it is overlooked, I think, that here again we make no real advance from Greek imagination; Anaximander knew as woefully as may we that man is a midget in the midst of the immeasurable. As distance finds our vision's infinity, the lines of the parallax unite; and to seek to evoke awe by stringing out ungrouped ciphers, right or left of a point, is to make play for clown's gapings. Homer—I shall cite it here also!—Homer, says Longinus, when he likens the stature of the Titan to the distance from Earth to Heaven measures the Mind of the poet, not the bulk of the giant. And to this understanding we have to thank the philosophies of the idealists that they have held us true. If in doing so they have partially defined the *personæ* and properties of a vaster Pageant of the Mind than even Plato has ventured to sketch, this is but to lift them the higher to our gratitude. And such is indeed their gift; they have told us that experience is *informed*, and life *inbreathed*, and that mind is architectonic in a valuative as well as a structural fashion; until from these truths they have upreared before us simulacra of what Gods might be.

. . . But of the deeds of these Gods, and of how the world may indeed be divine in action, this the philosophers have not told.

Possibly (am I in error?) here, too, the chapter of abstraction is drawing to its close, and the gift of the Greeks finding its fulfillment. In such a metaphysic as Bergson's, it seems to me, we are in the presence of an *idea* which is also an *experience*, of a *Physis* which is also an *action*, of a *reality* which is also a *life*. The two modes of the older philosophizings seem to be on the point of closing into one, having the quality of neither, but the virtues of both. That there is still wanting a wisdom more commanding, by the aid of which philosophy may find right to a more imperial purple, this is my belief and my thesis. For as yet the courage of the further step seems to me not to have been found; the *World as Drama* is still to be discovered.

#### IV.

I would paraphrase Aristotle's famous definition of Tragedy, and applying it to a nobler than the poet's art of the drama, I would say: 'Philosophy is an imitation not of the *Physis* nor of the Mind of Man, but of an Action and of Life; for the World exists as action, and its end is this action, not a quality.' The quest of the *archê* was, after all, the quest for a quality which might be proposed as preëminent, and therefore as *the substance* in which all other qualities could statically inhere; from the elemental *water* of Thales on to the radiant *energy* of our own science, the substance is but one quality chosen from amid the many to bear the burden of all. Certainly, it is instructive that in a development of better than two millennia the progress of the conception has been all toward the *energy*, toward the conception of Nature's substance as verily an action; so that in our day matter itself dissolves into motion, and Cause seems to be on the verge of being summoned back even into the *Physis*. Meantime, in the supplemental domain which we have indicated, where in intellectualist philosophy metaphysic takes on the patterns of conceptions, here again we have moved inevitably, as the centuries have passed, from the static to the dynamic, from the high abstraction of the architect's drawings on to the vivid action of the concrete investiture. Thus the two main flows in the European speculative

current, from Greek times onward, have set consistently toward the discovery of a Reality which, whether seen first as an object of sense and converted into a *Physis*, or first as an order of thought and converted into a Pattern of Conceptions, has just by the force of the inquiry in each case been brought into the form of an Action. So that now, we may suspect, the two are in position to coalesce, making of this Action a unity and discovering as their common object a Creative World.

But for such an end the old categories cannot suffice, and we must rid ourselves of their more tyrannous prepossessions. The abstraction which is in number gives structure to Science. The abstraction which is in logic gives structure to Conceptualism. But neither of these is capable of giving more than the setting of a scene; they have to do with the properties of the world rather than with its moving image; there is in them nothing that can lift before us the tremendous flare into realities stellar and spiritual, be they flames of emulation or chaotic holocaust, which are deeply the objects of our faiths. Truly to open our minds to this, truly to *see into* the world's huge deed, we must pass beyond the categories of number and logic, and discover some more profoundly native mode of our understanding. It is unto this, I believe, that our minds are shaping.

I shall be quite downright about it. Mine is a doctrine of a return to primitivism,—yes, to barbarism in the sense that it is to a mode of thought that is older than the Greeks. Frankly, I am saying, we must leave the high road of unfleshed abstractions, and if we be truly concerned for the truth, we must seek her likeness in a mode more complexly substantive than either mathematics or logic can embody. The Law of Parsimony could serve without undue danger a manner of science such as Ptolemy's, coupled, as with him it was, with the guarding statement that its images were in fact but a chart, guiding through but not revealing Nature. But for us, who have taken it to mean that the true is the simple and that complexity is illusion, for us this so-called law of the reason has become only fetish, a black idol barring the light from the inner shrine. The greater understanding, to which we are vaguely awakening, is that the World cannot be less in complexity than is the height of its creations, that the end and not the begin-



ning of an evolution gives its measure, that not the rocks of its foundations but the gleam on its spire is the sign of the completion of the cathedral, and indeed that mind itself is alone capable of knowing mind. It is just this,—mind seeking comprehension through images of mind projected out into the world that has created mind,—just this which I designated heretofore as the primitive and first-set mode of our thinking. When the myth-maker sees a breath of heaven in the clouds above, harkens oracles from earth's caverns, or responds to the colors of light with discovered song, he is profoundly expressing a faith in the life of Nature which ascribes thereto a reality as great in span as is his own soul. And can we, with minds which have moved into complexities unknown to him, find a satisfaction of reason in aught less than our mind's gift?

Therefore, in saying that the philosophy of the future, for the key to its explanations, must assume for its categories the utmost complexities of life and mind, and must indeed reanimate the *Physis*, making of it such a Nature as men knew before Thales arose to make of the Life a Corpse, I am asking a return to the primitive,—as you may call it, though for myself I should prefer to name it the *native*, and by-the-spirit-endowed mode of understanding. That it must have form (mind at its height being still a lesser thing than the world is), this I concede. But I would ask that this form be the most comprehensive and vital of all the ideal modes that we may know; and that most comprehensive of forms I hold to be the dramatic. It is for this reason that I have named *Drama* as the cosmic category. I do not anticipate that it lies within man's power to exhaust the meaning of Creation through this or any other mode of thinking. But it is my conviction that no mode which has as yet been developed by mankind can for a moment vie with the dramatic in its facility for conveying meanings that are at once complex and convincing of reality. And of this, I conceive that the universality of the dramatic, as manner of expression, whether it be for men primitive or men sophisticate, is after a fashion the first testimony. For what in the mind's apparel man has long found most of service is surely of Nature's tissue.

Even where the *Physis* has been our concern this is true; Sci-

ence, not less than Animism, has been a myth-maker and an evoker of the Drama. On the side of its abstraction I have sought to indicate how the conceptions of physical science, through their own drift, have come to find in the idea of action, and that a Cosmic Action, their fuller satisfaction. But the idea of action, thought of as undirected energy, of itself could never have carried conviction to any lay mind, nor to any physicist's mind in its lay moments. What has actually borne the brunt of the battle for conviction has not at all been the scientific conceptualism, the image of the Machine, but an image of a far more moving quality. This is the Cosmogony. Whether the naturalist's cosmogony be conceived in the older fashion, as a sweep of luminous gas athwart abysmal space winding into nebula and galaxy, or in some newer mode as stygian rivers of black night, reptilian through their æons, with accidental whirl-pools and confluencies, in any case the image of world-building has given to the heavens their whole sense of reason, and has made of the stars a physical presence rather than a dream; and this assuredly is mythopoesy. Not less need be said of the images of terrestrial and of vital evolution. The very word *evolution* implies drama; and it is because geology and palæontology have been so rich in dramatic form that they have carried their stagings deep into our consciousness, superceding the older, and as we say superstitious images of earth's making. So far as our science of explanations goes, for all this Evolution we have as yet no account other than its own innate drama; the shreds of genetic sequence found in the histories of plant and animal life, the details of the linking up of parent-force and child-force (for 'forces' have here this generational relation), the biophysical, biochemical, bionomic liens and loans which give speciousness to biology as abstraction,—all in the end get their convincing power from the fact that they are embraced within a biology which is dramatically staged as an evolution.

Upon drama, then, even our natural science has depended and does intimately depend for its sense of rationality. And the more the several sciences are made interlocking for their final interpretations, the more clearly does this dramatic character stand forth; there is, indeed, little more than their ability to picture a cosmogony that *can* combine them; so that in the fairest of sayings we must

speak of their total image as the scientific *myth*. But it is just here that we may also speak of their scientific *truth*,—if myth and drama be, as I have urged, the fuller mode for the expression of truth. If I may illustrate, conceive some of the striking correspondencies revealed in Earth's history, as viewed by geologist and palæontologist. The affluent seas of the Pennsylvanian formations; then suddenly the red deserts of the Permian, following, as we suppose, upon vast glaciations, but marking certainly a transition in life-forms which can give us, after the old Age of Sea-Creatures, an Age of Reptilians; and again, the glaciations of the Eocene, inaugurating an Age of Mammals; the glaciations of the Pleistocene, inaugurating an Age of Man. Surely it is as if Nature herself had devised the drama, the record of which is painted in those junctures of stratified rock where the palm of a man's hand may touch the gray of the Pennsylvanian strata and his fingers tip into the Permian reds; the hieroglyphs of millions of years repose, up and down, in the laminated stone, each constant in its color, but *here* Nature shifts hugely a scene. We may say that the correspondencies are related as cause and effect, but there is no proof whatever that they are not wholly fortuitous,—no proof, save indeed it be in that mode of drama which with each resetting of the stage calls for advance of the Play's action. All of Evolution, whether Terrestrial or Celestial, bears witness to this metamorphic mode of Becoming, present in the atom no less than in the star. For it there is no reason excepting the Evolution itself, no other rationality than that of the Drama. But this reason, for our conviction's sake, is surely a sufficient reason. Long ago Aristotle remarked that Nature is not, like a bad tragedy, episodic; now we amend, saying, but Nature is, like a good tragedy, composed of the episodes that depict her meaning, these being separated by shifts of the phantasm, whereunto for each there is a loftier than the visible chorus chanting her Destinies.

But I would be true to my principle, that only the most complex can be our sufficient reason; and I would say that the most complex that we know is to be found neither in the stars nor the rocks nor yet in some bodied flesh, but rather in the mind and the spirit of man. If the Age of Man is for us Nature's most vivid Presence, so the Mind of Man is her utmost Eloquence. Now of the Mind

of Man *history* is our record, and it is in this history that most fully we gain our visions of the world's meaning. I am not now speaking of that history which but collects and verifies details and sets down the orders of events. Rather, I have in thought the more penetrating, and if you please imaginative, study, which gives for its outcome some image of the inward being and the directive sense of these events. When history attains to this mode it also becomes dramatic, reading life as an action, and finding its truths in impulsions which are causally seated there where the Fates (be they mechanic, be they spiritual) line out the courses of human Destiny. Here again, it is the larger, the perspective view that alone can give reason. The historian who centers his attention upon the moment and the locale is certain to lose all sense of bearings and meanings; no event or time can be understood when taken apart from the entirety of the revealed drama, and it is only as the fragments of the play are read out to us, being conceived as the broken parts of that which we must reconstruct, that history as a science may come to have any consequence. But so taken it is easily first in the richness of the meanings it may bring to us, whether for philosophic reflection or for life's pragmatic orientation.

Once more I would illustrate, and I would ask you to review in imagination the long series of the representations of the human form and face which appear in Mediterranean art from Greek times on down to the eve of Modernity. Hellenic art emerges into its archaic period with a smile on the lips of its images, but it is a smile which is oddly *subcivilized*, almost *subhuman* in character; the archaic statues, whether of men or deities, have about them some flavor of faun or nymph, as of a gaiety touched with animality, indeed, we might almost say with a touch of the insane. Sanity comes at once with such a thing as the Discobolus of Myron, but it is a sanity that is essentially outward and hygienic, a sanity of the body and its action; and it prefaces directly the evenness of temper, amounting almost to placidity, of the high classic, with its Zeus, and Athena, its smooth Hermes, and burdened Caryatides. Then follows the long effort to put passion into marble. For the Hellenistic time this was mainly still connected with physical modes—the Dying Gaul, the Laocoon, the distraught

Seneca (if he be Seneca), Nero histrionic even in the stone,—although there is the other thing, too, Euripides heavy with the burden of thought, Cicero *raffiné* to the fibre, the pathos of young girls, and remote within the catacombs the dimly appealing graphs of the Good Shepherd or the blessed grace of the Teacher. It is all along, pagan into Christian, a struggle to get *behind* the flesh and *into* the spirit; and when the Italians of the later age, unknowing what lay behind them, take up the thread of Christian art, it is with this same instinct, on to Raphael and Michelangelo, although I think that its very climax is in El Greco, and that from him nothing more directly expresses this bent for the inward than does the St. John now in the chapel of the Voorhis School at San Dimas. There, in fulfillment, is the human image transfigured into a spirit's flame,—and suddenly we perceive toward what the genius of the earlier Greeks had been striving. Here is a strand of man's history, which only in a day when the archæologist's spade and the student's survey could bring its evidences together can be seen to show a singleness of direction that, in this one field of visible art, moves like an episode from its sense of the physical to a sense of the spiritual, thereby reflecting the major drama of man's mind. And its interpretation is to a mode of understanding that is to be gained neither from number nor from formula.

But it is not to science nor yet to art that we must look for the most convincing form in which the sense of drama has appealed to the human mind as the fulfillment of reason and the image of wisdom. Rather it is to the religions of men, and in particular to the higher and more purified examples. Every religion is rich in dramatic expression, in its mythos and in its ritual, and every religion also is effective in its recognition that the imagery of its drama is definitely an imagery, having beneath it, as meaning, a wisdom. But it is the greatest religions, and above all Buddhism and Christianity, which have made most conscious the token-like character of the drama which is at the heart of them. It is not that in either case, for Siddhartha or for Jesus, the actual incarnation, the embodiment, is conceived as less in the *Physis* or in History than are other embodiments, be these of natural forces or of men's lives; but it is their truth that, for each, a man's life may be viewed for what every such life must be—a *manifestation of the*

*essential Action of the World itself.* The Buddha and the Christ are alike viewed as theophanies because it is the wisdom of the religions which they found to see lives as fabricked by destinies, and hence as in themselves double in nature, man in image, God in meaning. It is the religious insight not that the world is artificially dual—so that here is phenomenon and there reality, here knowledge and there its object—, but that it is inherently dual, the Action of itself lifting into being a meaning, and the World arising as the compound of meaning and action; in this sense Siddhartha becomes Buddha, in this sense Jesus is Christ. With a sheer force that underlies all else, in these religions in this profound and fundamental defining to man's consciousness of his sense that the life he lives is real not only *of itself*, but also in that *significance* of which its events are the token. We call this our understanding of the human spirit.

In the end the drama is our illumination, and nothing comparable to the two great Dramas of Redemption, Buddhist and Christian, has as yet brought persuasion of understanding into the lives of so vast bodies of mankind. That such persuasion is self-justified, that it is reason in the fullest sense, is my contention; and I would go farther, and say that whatever metaphysic may in the future supplement those that are of the past—be it scientific, be it within the tradition of the religions themselves—, it must to succeed with the minds of men be the equal of these religions in dramatic power, and like them must have as the heart of it some drama of the world and of man.

Need I add that this drama will be heroic, and this man an Uplifted Man, of whom the Vision will be set like a seal in the midst of the splendors of the Cosmos, while into his being every passionate idealization of human nature will leap as flame into flame? He will be token and pattern and action of all that is divine, as we may come to know our divinity, not after the fashion of man's flesh, but by the measures of his mind's best and of his spirit's deep necessities. There is a hush and a stillness that follows upon the enacted tragedy; innerly it is our moment of revelation; and the revelation is ever the same, the eternal one of the Pattern Man.

HARTLEY B. ALEXANDER.

## VISION AND TECHNIQUE IN PHILOSOPHY.\*

IT is not without awe that one brought up in oriental regard for his masters can venture to address you from a post formerly occupied by his revered teachers, Royce, James, Woodbridge, Sheldon and Adler. What melody can my frail harp bring forth that is comparable to their rich music? But the kind suffrage which has elevated me to this position imposes its obligations. I must speak to you of Divine Philosophy, as she appears to my own poor eyes, even when what I see differs from what is revealed to those that I revere most highly. And this has dictated my theme. The subject of vision and technique not only touches all our common philosophic interests and brings them into relation with the general intellectual temper and issues of our age, but also enables me to use my brief moment of authority to sound a warning against what seems to me an insidious danger to philosophy, a danger which neo-romanticism and the genius of William James have served to strengthen. I mean the sharp contrast between vision and technique to the disparagement of the latter. Let me begin with the last point.

Years ago, when, with boyish ardor for economic science and zeal for social reform, I first approached the temple of philosophy, its official servitors and priests seemed to me too preoccupied with ritual or technique and too little with the problem of feeding the multitude at the gate with genuinely sustaining intellectual food. It was therefore with much sympathy that I first heard William James declare that the essence of philosophy is vision, and not technique; that where there is no vision the people perish.

Pride in merely technical competence has always been deadly to further intellectual achievement. A good deal of the unsubstantiality of later scholasticism was certainly due to the fact that after it had elaborated a subtle and most useful set of technical distinctions men felt themselves to be learned by the mere acquisition

\* The presidential address to the Eastern division of the American Philosophical Association at New York, December 30, 1929.



of this apparatus, by the mere ability to speak in a learned language. The change from Latin to the vernacular revealed this emptiness and forced greater attention to substantial content. But since then new technical vocabularies have been developed in philosophy as in the related fields of popular psychology and sociology, so that exercises in these terminologies often hide the paucity of genuine insight. Let us then not forget, amidst our professional preoccupations, that philosophy is literally and truly a form of love, the love of a certain elevated universal or cosmic knowledge anciently called wisdom. Unless we love this knowledge for its own sake and regard all technique as instrumental for the attainment of the vision of supreme truth we surely bear the name of philosophers in vain. Unless our toil is above all for the delight which the mere vision of philosophy as the supreme mistress of our mind and devotion brings, we may be paid servants in her household but never her true lovers. Yet the true or devoted lover must also serve, as the institution of chivalry well recognized. To insist on vision without technique has actually and historically proved a perilous half-truth. It needs to be accompanied with the observation that without laborious and thorough-going technique neither art nor science nor philosophy can prosper or live worthily. Titanic genius such as William James' may seem to create its own method or technique. But those of us to whom philosophy is not a matter of blind faith in the vision of others, and who cannot assume the perilous responsibility or irresponsibility of the genius or prophet, must view the work of the philosopher, like that of the scientist, as part of humanity's organized search for universally ascertainable truth, a truth that can withstand partisan contention and critical doubt. Whether we view it realistically, idealistically, or pragmatically, truth is more than a private, arbitrary opinion or impression. Not only must the truth of a proposition be tested by its consequences, but its very meaning, if it is universal, is constituted by its implications or logical consequences. Thus the meaning of any of Euclid's axioms, of Newton's laws of motion, or of the rule of respect for personality or property, is constituted by the system of propositions that can be deduced therefrom. The philosophy therefore which seeks to attain truth requires continuous and organized

means of penetrating into the hitherto unknown, and definite ways of so consolidating our findings that others engaged in the same task may build upon them. Otherwise each individual begins anew without any hope of aid for himself or prospect of helping others. The orator may impose his vision upon us through his eloquence, the vision of the poet may charm us by the beauty of his magic lines, and the vision of the prophet may stir us to our depths by the awful conviction that 'thus saith the Lord'. But the vision of the philosopher, like that of the theoretic physicist or biologist, finds its justification in the light it brings to diverse searchers for ascertainable and verifiable truth. Unless, therefore, our philosophic vision receives technical development and is verified in many fields, it may rightly be condemned as unsubstantial and visionary.

Now I am far from denying all value to the vision which runs ahead of verifiable fact. How shall we ever develop and verify hypotheses unless we first entertain them in their unorganized and unverified form? Humanity's safety and natural growth depend upon the adventurous or pioneer mind that can penetrate the dark jungle that surrounds the little clearing that knowledge has conquered in the domain of infinite ignorance. But the pioneers who lose contact with their fellowmen and with the familiar signposts all too often get lost, and those who return are frequently bewildered so that they are not always safe guides to the green fields that they imagine they have discovered. Humanity therefore does well to be critical in following its visionaries. We must examine the ground of proposed new paths carefully and cautiously. The cosmic vision of romantic philosophers like Schelling must submit to the painfully laborious methods of rigorous mathematical demonstration, experimental methods of counting, measuring, weighing, and the like.

At no time has the need for correcting the aberrations of romantic philosophy been more urgent than today.

We are living in an age which, though aware that it is based on the achievements of technical science, still harbors a strong aversion for laborious technique and a strong predilection for seemingly easy romantic ways of getting rich quick in the arts and in wisdom as well as in purely financial matters. In painting, music,

and literature the thorough mastery of one's art is nowadays often reviled as academicism, and in popular science the public demand is certainly for romantic results cut off from the evidence or the technical methods without which they are meaningless. Whether it is because of the impatience of King Demos and the cowardice of his courtiers, who dare not tell him that there is no royal road to knowledge except the steep climb up the Hill of Vision, or whether it is that the rapid staccato rhythm of our mechanical age breaks up our time and makes long sustained efforts in intellectual work almost impossible, the fact is that there is a noticeable waning of faith in and respect for technical competence in philosophy. We need, therefore, to be reminded that not only the greatest philosophers, Plato, Aristotle, St. Thomas, Leibniz, Kant and Hegel, but the men of highest genius in all the arts, Dante, Leonardo Da Vinci, Newton, Napoleon, or Beethoven, devoted very painstaking study to the technique of their respective work. (Even that romantic egotist, Richard Wagner, attests this.) As the technique of painting not only helps the painter to express more adequately what he sees, but also helps him to see more accurately, as without its technical methods the vision of science would be indistinguishable from mythology, so apart from rigorous technical development, philosophic vision is thin and devoid of substance,—either irresponsibly capricious or else a dark night in which all cows are black.

In the bald form in which I have put them, the foregoing remarks doubtless sound trite and commonplace. But philosophy need not fear ancient truth more than novel error. Indeed, the craving for novelty is indicative of low intellectual vitality. Eternal truths bear eternal repetition. And to me, I confess, these rudimentary truths seem peculiarly timely.

When the public at large is urging us, on the authority of our leading representative, Professor Dewey, to abandon the technical problems which occupy philosophers and to go back to the problems of men, it is surely opportune to insist in all seriousness that we shall never help humanity very much by neglecting our own special task, the only task for which we are as philosophers properly trained. It is true, of course, that in science as in the arts technical problems tend to become too complicated, and it

is often advisable to retrace our steps and to find a new path through our tangled difficulties. But the value of a new approach is to be tested by whether it enables us to see the old problems in a new light. He who is constantly making new starts never gets anywhere. It is well at times to return to naïve experience to make sure that we have not overlooked some important fact. But the myth of Antæus doubling his strength by contact with the earth does not mean that all progress is a return to the mud whence we have sprung and in which we are still all too deeply sunk. The past has its ineradicable marks in us, and it is vain to try to regain our youth completely by throwing away the experience of the years in favor of some romantic elixir which so often turns out to be a very ancient intoxicant. William James has almost persuaded our present generation that progress in philosophy depends on the easy device of avoiding Kant rather than on the difficult job of going through him. But this advice, flattering to our vanity if not to our indolence, has not brought any noticeable gains to philosophy. Confused as Kant was in some of his pedantically technical preoccupations, we can still gain strength by putting our minds on his problems and thinking his thoughts, even if in the end we may reject his assumptions and conclusions. The more difficult path is the more profitable one.

It is said that the enterprising president of one of our far-western universities, moved by a characteristic desire for economy, once decided to abolish his department of philosophy. The history of philosophy was to be taught by the department of history, logic by the department of mathematics, ethics by the department of social science, and metaphysics by the department of physics and the divinity-school. I know not what practical difficulty hindered this scheme. But if philosophy is worth maintaining as a separate study it is because it has a point of view and a technique which distinguishes it from other studies. To a rapid survey of this I wish to devote the rest of my brief hour.

*Vision and Technique in the History of Philosophy.*—There can be no doubt that the history of philosophy is properly a branch of history, subject to the same tests of scholarship. This means that not only must all references to the views of Aristotle, the scholastics, Kant or Hegel, rest on some actual text—something which

seems to be going out of fashion today—, but our knowledge of the text must be so adequate as to enable us to decide whether certain quotations are or are not truly representative. If any one refers to Democritus as a merely speculative philosopher, to Galileo as a mere experimentalist, or to Hegel as a psychologic or subjective idealist, we can say that he has not conformed to the requirements of technical history.

Unless we go back to the actual writings of individual philosophers and apprehend them by the principles of interpretation followed in all critical history, we shall continue traditional myths that grow more and more conventional with repetition.

But the philosopher's interest in the history of his subject is *more* than historical. The history of philosophy is for us more than philology or the archæology of ideas. The lives and opinions of philosophers whether told in the ancient or the modern style are not a history of philosophy. We want to know the truth of these opinions or ideas. This is indispensable because it is logically involved in the question which of those who have emitted opinions have been real philosophers; and this means that the history of philosophy must involve philosophic vision and technique over and above that which may satisfy the historian of civilization.

This conception makes of the history of philosophy a laboratory of intellectual experiments, where we may learn from past thinkers by observing the results of their experiments.

Though the word 'social' is heard all too often in the din of current discussion, few of our pragmatic friends seem to care for this form of intellectual coöperation with those who preceded us in the search for truth. Truth is, in fact, not a highly regarded idea today. It is easier to invent social explanations of what caused the ancient philosophers to hold their opinions, than to determine whether these opinions were true. Professor Dewey's paper at the last congress of philosophy, with its contention that truth is inapplicable to the cultural meaning of philosophy, may be taken as the authoritative expression of this tendency.

But truth cannot be so readily disposed of. For the question, whether certain views of Plato, Kant or Hegel were or were not dictated by certain political situations in Athens or Germany, is itself to be answered either truly or falsely.

We smile complacently nowadays at men like Descartes and Spinoza who conceived of philosophy as a search for clear and adequate ideas and thought that they themselves had arrived at truth. I wish to suggest in all seriousness that their claims are better founded than many of the current explanations of the social or political origins of the cosmic views of diverse philosophers. It seems remarkably naïve to assume that all philosophers have been predominantly preoccupied with the social and political condition of their time, rather than with the more permanent conditions of human life and cosmic existence.

Philosophers have generally been men of a speculative turn of mind, and therefore indifferent to many things which absorb the attention of the multitude in their time. And it is for that very reason that they interest us today. Plato speaks to us, not because he was interested in the affairs of Athens, but because he was more than an Athenian. His criticism of the Greek democratic method of electing officers by lot was based on little insight into its actual rôle. But when he speaks on the doctrine of ideas he touches on something which has been a beacon-light to human thought throughout the ages. Aristotle, the most influential of philosophers, seems never to have been concerned about the conquest of the world by his pupil Alexander.

We may, with Professor Dewey, see in Kant's moral theory a reflection of the Prussian régime of the Great Frederick. But may not the influence of the Stoic classics, and Kant's preoccupation with the laws of mathematical physics, afford a more apt explanation? We know that Kant's catholic and many-mansioned mind was not much solicited by contemporary political affairs. The invasion and occupation of his native city by the Russians does not seem to have affected him in any way. He applied to the Russian Empress for promotion in the same way and with the same negative results as he had to the Prussian authorities. Nor is there anything distinctive of his philosophy in his mild and qualified sympathy with the French Revolution or in the restraint which the Prussian Government put for a time on his freedom of publication.

It is true that Hegel late in life gave the Prussian state a high place in his philosophy. But Hegel's formative influences were

theology and the classics. The national struggle against Napoleon did not interest him. He put the finishing touches to his un-earthly *Phänomenologie* as the Battle of Jena was about to be fought almost at his door. His glorification of the State is probably due more to his study of Aristotle than to any political event of his day. If his dialectic evolutionism dominated the thought of both revolutionists and conservatives of the nineteenth century (and still dominates us), it is because of its intellectual appeal, or, if you will, because it offered a convenient technical terminology.

I do not wish to deny that a knowledge of the history of civilization, like any other knowledge, widens our vision of philosophic truth. But cultural explanations of how certain opinions arose are themselves highly speculative, seldom based on adequate evidence, and cannot in any case enable us to dispense with the often simpler philosophic issue as to the truth of the opinions studied. The technique of the history of civilization cannot replace the technique of philosophy itself. Pericles, Alcibiades, and Demosthenes had definite views which reflected the conditions of their time and influenced the views and conduct of their fellow-men. But they do not belong to the history of philosophy as do such men as Parmenides, whose monistic views might have been enunciated ages before or ages after. The life and geographic environment of Thales are really irrelevant to the truth of the mathematical propositions and proofs which he discovered. The same is true of Democritus' theory of atoms, Spinoza's theory of substance, Berkeley's nominalism or Kant's deduction of the categories. Yet philosophically these issues are of the highest importance.

Those who, in the history of philosophy, would subordinate logic and metaphysics to the study of political and other social conditions generally profess an extremely empiricist philosophy, as do most followers of historicism, geneticism and evolutionism. But a careful examination of the implications of their position shows them to be logically, if not historically, descended from the panlogistic Hegel, according to whom the philosophy and general culture of any age are but an incarnation or emanation of the absolute, developing according to a necessary logic. It is a philosophy which will not recognize that the actual world contains many



things which are irrelevant to each other. Those who profess it have been driven to this position by the fact that actual history is too fragmentary to give us the complete rounded story that popular taste requires. Hence those who begin with professed anti-intellectualism naturally fall into the most extreme and abandoned form of crypto-rationalism. A more realistic approach to the problem, however, shows that the most significant factor in determining the path of philosophizing is the fund of available analogies that prove fruitful to diverse minds. Those analogies which by persistent thought become fruitful hypotheses are suggested to philosophers by their own reflection or by the reflections of other intellectual workers. Thus contemporary philosophies find their starting-points in certain ideas of physics, like that of law or causation, or in biologic ideas, like evolution, natural selection and the like. And this seems always to have gone on. Plato's, Descartes', and Spinoza's views were largely suggested by mathematical studies; and Leibniz's by these and also by his juristic studies. Aristotle's logic seems to have been largely moulded by his interest in classificatory zoölogy. Kant's theoretic philosophy was largely moulded by the form of Newton's *Principia*. This means that the history of philosophy should be studied in close connection with that part of the history of civilization which is most relevant to it, namely, the history of science. Philosophy and science not only were originally indistinguishable parts of the same body of learning, but still have in common a devotion to truth and to critical methods of testing the latter by rational evidence. The divorce between the history of philosophy and the history of general science has been most unfortunate for both. The traditional form of the history of philosophy was fixed by Cicero, Diogenes Laertes and St. Augustine; until the older Aristotelian view of the history of philosophy, as a gradual evolution of the full truth, was revived and transformed according to an absolute logic by Hegel. Meanwhile our histories of science have been dominated by the superficial philosophy of Voltaire, that the world lived in utter darkness about science until the advent of the prophet Bacon. It is only recently that, thanks to such labors as those of Duhem, we are recovering a saner view of the continuity of the history of science, and are realizing the baseless-

ness of the empiricistic ideology—or rather demonology—according to which theology and speculative philosophy are the two devils that have hindered the growth of science throughout the ages.

In this connection I should like to note the shameful neglect of the study of the interrelation of the history of philosophy and the history of medicine. For ages after Empedocles, Democritus, Hippocrates and Galen, the physicians were the official custodians of physical philosophy. It is only recently that the terms physicist and physician have become distinct. It is well to remember that the University of Padua, with which are connected the greatest names among the founders of modern science (Copernicus, Vesalius, Galileo, Harvey, and Gilbert), was the university of the Averroist tradition in medicine and philosophy. The logical writings of Zabarella, the colleague of Galileo, show how unjustly the Averroists have been judged. Schelling's romantic philosophy of nature was influenced by the medical system of Dr. John Brown. These ideas of irritability and excitability, of stimulus and response, have moulded our modern conception of psychology. The influence of medicine on psychology has continued from the days of Lotze to those of Freud.

I must also in passing call attention to the fact that the romantic philosophy of nature rendered most important services to the growth of natural science, as Oersted's discovery of electro-magnetism, Von Baer's work in embryology and Johannes Müller's work on the physiology of the sense-organs amply testify.

Due regard for the intimate connection between vision and technique in the history of philosophy will also aid us in disposing of the Philistine assumption that philosophy should deal with the present and let the dead past alone. Both history and philosophy show the impossibility of an absolute separation of the present from the past; and that the more intelligent our apprehension of the present, the more it involves the past. Conversely, a philosophic analysis of the technique of historical method shows that a knowledge of the past is impossible to those who do not understand the present. The whole of history is a logical inference from facts which exist in the present, but are interpreted as remains of the past. Our knowledge of the past is thus a necessary extension of our knowledge of the present.

*Vision and Technique in Logic and Metaphysics.*—Logic and metaphysics form the nucleus of philosophy, and the relation between them is perhaps the best illustration of the relation between technique and vision.

The panlogist identification of logic with metaphysics, of rationality with existence, has always brought forth opposition. This opposition often maintains that logic is a merely technical device either for the manipulation of words, or else for the attainment of mere consistency of thought. In neither case, it is claimed, does it give us truth or does it deal with reality which is more than words or thought.

It is a characteristic irony of fate that those who object to logic as dealing with mere words, make an idol of the word *reality*, and generally use it with a sort of emotional afflatus that carries no definite meaning, just as our less sophisticated brethren and sisters use the word *grand*. Obviously, however, if the word reality is a symbol pointing to something beyond it, so may other words be; and a manipulation of symbols may give us truth to the extent that there is some correspondence between these symbols and the realities to which they point. It would be well if American philosophy could devote more attention to philosophical grammar. For a logical analysis of the categories of language, of the nature and function of communication, can carry us into the heart of metaphysics.

Who can doubt that language is an aid to thought? Do not children learn to think after they have learned to speak? Do not our thoughts grow as we learn to express them? Intelligent discourse can no more be completely divorced from thought and the things thought about, than it can be from the action of the organism of which it is the expression.

But language, if it is understood, also involves those to whom it is addressed; and this means a world of thoughts and objects common to the speaker and hearer. Symbols then connect the world of thought with the world of things, and a logic of symbols cannot be removed from the substance of philosophy. It is one of the many profound contributions of Charles S. Peirce to philosophy to have put symbols beside thoughts and things as a fundamental category.

It is, therefore, extremely unfortunate for philosophy that in no field is the divorce between vision and technique as marked as in that field of exact logic in which the use of special symbols is such a great aid. There is an undisguised feeling of superiority with which most philosophers turn away from any exposition that involves quasi-mathematical symbols. They say they are interested in reality, not in artificial language. Yet there can be no doubt that without appropriate symbols many branches of mathematics and physics would not have been developed,—for example, Maxwell's electromagnetic theory. If the equations of electromagnetism were written in ordinary non-technical words, they would sound so complicated and would occupy so much space that we could not grasp them as totalities or see the necessary distinctions. Without the proper nets we cannot catch schools of fish, and without proper lenses we cannot see the phases of the planet Venus or the structure of protoplasm. The use of proper symbols has enabled us to come closer to an adequate representation of the actual course of mathematical demonstration, and in this way it has not only facilitated certain mathematical inquiries but enabled us to give a coherent account of the nature of infinity and continuity, so that these ideas are no longer recurrent occasions for gaping awe or intellectual violence.

Symbolic logic helps us to make our assumptions explicit, and our deductions rigorously concatenated. This clarifies the structure of our system, and enables us to see more exactly what it is that we are asserting or believing, and what evidence we have for it.

All this, however, does not deny that symbolic logic is apt to become sterile if it isolates itself completely from the content of philosophy. The very elegance of symbolic expressions, and, at times, a justifiable repugnance to the looseness of ordinary philosophic discourse, prevents us from advancing the subject so as to bring it nearer to the more concrete problems of reason in the sciences. Thus symbolic logic defines a proposition as that which is true or false; but it does not go on to work out any criterion as to what assertions have that property. It is obviously not true that every sentence that has the form of a proposition, *e.g.*, 'Jones is wise', is true or false. The latter is in fact an incomplete state-

ment; so that when one is asked whether it is true or false, the answer might well be 'that depends —'. That is to say, further qualifications may be necessary to make an assertion true or false.

Let us now consider the second objection, that logic is a mere technical device for securing consistency, and that this is not the same as truth.

This view gains force through the abuse of the word *mere*, the most dangerous word in our language because it is the only one that has a superlative but no comparative. Logic is an organon for attaining consistency, but this does not mean that truth and consistency though distinguishable are mutually exclusive. What would truth be or mean if it did not involve consistency? Unconscionable mischief has resulted from the unfortunate controversy between those who believe in the coherence-theory and those who believe in the correspondence-theory of truth. A regard for the actual technique of science shows that both are involved in the attainment of truth about nature. The removal of inconsistencies in our theory or account of any field is a necessary step in, and stimulus to, scientific progress. But there must also be experiential correspondence or identity of logical structure between the elements of our theory and the experimental results to which they point.

This means that mere logical consistency is not sufficient to guarantee existential truth about nature. But this itself is a most illuminating proposition. For it sums up the lesson that belated rationalists have refused to learn from the discovery of the possibility of non-Euclidean geometry, of diverse types of algebra other than the traditional one, and of non-Newtonian mechanics. Logical or mathematical proof can never get rid of unproved assumptions, and the truth of these assumptions is not guaranteed by logic,—except in the case of propositions whose denial involves self-contradiction, such as: 'There are assertions, propositions, things talked about', etc. In every scientific system there are propositions that are presupposed and cannot therefore be refuted within that system, and it seems that all possible logical or systematic truth involves some presupposition of this kind, which we may thus call absolute, *a priori*, or invariant. But, leaving those

out of account for the present, we may admit that logical proof of consistency does not prove our results any truer than our unproved assumptions. But while logic cannot then in general prove the truth of our assumptions, it does develop their fuller meaning; and we cannot establish the truth of the meaningless. Thus while modern mathematical or exact logic, as a technique for attaining consistency, has through such discovery as that of non-Euclidean geometry clipped the wings of the old arrogant rationalism, it has also shown the futility of myopic empiricism and the view that the propositions of pure mathematics are inductions. You cannot by the observation of a few cases prove a rule, unless you have already assumed that these cases are instances of the rule. Psychologically, of course, the consciousness of the universal rule may follow the consciousness of the particulars which assume it. But the psychologic order in which we learn propositions is not the same as the order of logical dependence of the propositions learned, just as the order in which we learn of certain historical events may be different from the order in which they occurred.

Reasoning as a psychologic or temporal event in an individual biography is seldom either deductive or inductive. We seldom start with the right premises to go on in a definite order to the proper conclusion. Often we start with some vague idea of the solution or logical conclusion at which we wish to arrive, and seek for premises to support it. More often still we start somewhere in the middle and fumble backwards and forwards to discover pre-suppositions and implications. As we do not know our way in the unknown, we seldom reason in straight lines. Our time is for the most part spent in hesitation, false starts, and painful re-tracing of our steps. It takes time before the proper logical order of axioms and theorems can be discovered in a mathematical system like mechanics. Indeed, it took many centuries before the proper axioms for Euclid's geometry were formulated. The logical order thus discovered is an order of our subject-matter.

If logical order is thus a characteristic of the world studied, logic is a part of metaphysics, and its technique opens our vision in the field of abstract possibility. Natural science, of course, is never satisfied with mere possibility, but seeks those possibilities that can be embodied in verifiable experiments. But natural

science can proceed only on the basis of some theory, and this means that mathematics or logic is applied to nature. If proof is applicable in natural science, it is because there are relations of identity which remain invariant throughout natural changes. The rules of logic and mathematics are rules of transformation in a universe where repetition of some sort is possible and where change is thus always relative to something constant.

The metaphysics or world-view involved in logical procedure, especially as applied in the exact sciences, is a vast and promising field of study. It offers a much needed alternative to recent romantic philosophies, like those of James, Bergson, and Croce, which indeed have stirred genuine enthusiasm by trying to be constructive, but have been too impatient or capricious to pay close attention to logical and scientific technique. In vain does this impatience try to justify itself by the view that rational science is a mere practical device devoid of genuine theoretic or philosophical insight. Metaphysical or philosophical vision must doubtless extend beyond rigidly demonstrative science. But serious philosophy must be something more than a poetic image or prophecy. The views of poets and prophets have in fact often proved narrowly one-sided, conflicting, incoherent, and illusory. To introduce order and consistency into our vision, to remove pleasant but illusory plausibilities, to contrast various views with their possible alternatives, and to judge critically all pretended proofs in the light of the rigorous rules of scientific evidence, is the indispensable task of any serious philosophy that can pretend to hold a consistent doctrine. The seed which ripens into vision may be a gift of the gods, but the labor of cultivating it so that it may bear nourishing fruit is the indispensable task of arduous scientific technique. Scientific method, rather than any body of scientific results, lies before us today as the safest road to truth. While results are constantly being corrected, this takes place only in the light of logical rules of evidence. Hence any philosophy that ignores or attempts to belittle this method or technique for attaining truth lives in a fool's paradise, which is proverbially of short duration.

Yet it is not altogether unjustly that *Logicism*, formalism, and logomachy, are terms of reproach in philosophy. Metaphysics is



more than logic, even as existence is more than empty form or bare possibility. As an attempted view of the world in which we live, metaphysics cannot well ignore the facts which form the content of the natural sciences. It must deal, as in its vigorous days it always has, with the questions of natural existence, of time and space, of law and cause, of matter and life, of mind and body, of the origin and course of our actual physical world, and of the ultimate fate of life in it. How could philosophy pretend to have anything to say on truth and reality if it ignored these issues?

As the philosopher, however, is not generally trained in all the special sciences, how shall he escape the humiliating ridicule which fate always has in store for those who venture beyond what they know? Can we uncritically rely on authority for the so-called results of science? That would indeed be abandoning philosophy's birth-right. For since metaphysical assumptions of some sort are inevitably made by everybody, and since these assumptions are not the sounder when they are not critically examined, it follows that if we passively accept the latest (and perhaps unripe) physical theories, we shall swallow a lot of bad and even obsolete metaphysics. The history of materialism, of phenomenalism, of the various evolutionary theories from Spencer to Bergson, and the popular-scientific writings of physicists turned into metaphysicians such as Professor Eddington—despite the admirable character of the latter's strictly mathematical work—, amply illustrate this danger.

A sane and decent regard for our own work demands, therefore, that we be not seduced to abandon it for what may seem the greener fields of our neighbors.

We shall distinguish our work from that of others all the better if we recognize that our fields are bound to overlap in some respects. The physicist like other human beings may be interested in world-views or cosmic pictures; but this is subsidiary to his search for definite hypotheses or laws from which consequences can be deduced that will agree or disagree with experimental results. Thus Newton, like Kepler and even Galileo, was greatly interested in neo-Platonic metaphysics, and copied out many pages of Boehme. But since he was a physicist, every idea had to lead to mathematical computation and experimental verification.

Metaphysics, however, is not interested in the discovery or formulation of specific laws of nature or the prediction of specific facts. It is primarily concerned with what Plato and Kant called ideas, *i.e.*, with formulations of those ultimate totalities (or absolutes, if you please) which a changing world can show.

I do not mean to rule out from philosophy those who like myself see insuperable difficulties in any idea of an actual total universe. The world of existence is unfinished in time, and our subjective notions of it must always be fragmentary and inadequate. Despite all of our efforts the diversities of existence are always greater than we can reduce to substantial unity, so that the formal unity of our world is only that of an incompletely reduced plurality. But the idea of an absolute or ultimate totality of existence is necessarily involved, as a limiting concept, in all judgments that anything is incomplete, relative, or conditioned. We must have an ideal of absolute straightness to judge any particular line as a departure from it. If we discriminate between the formally and materially absolute totality, we need not hesitate to claim absolute knowledge of the former. Indeed, those who assert the impossibility of absolute knowledge must claim their assertion to be true in that very sense. And any rational inquiry into the limits of the knowable is possible only on the basis of certain metaphysical assumptions, such as that there are substantial minds that can introspect their content, that have certain relations to the external world, etc. The recognition therefore of the fragmentary character of our experience and of our factual knowledge does not remove but rather necessitates the metaphysical idea or ideal of a system or world of time and space to which all of our actual experience and knowledge more or less approximates. To seek the ultimate presuppositions and implications is as necessary for metaphysics as is the effort at finality of expression in art, or perfect demonstrability in exact science.

This distinction between the formal and the material, between what Kant called the regulative and the constitutive use of the ideas of reason, is obvious and rudimentary. I venture to put it before you because I believe it helps to put the proper emphasis on the distinctive traits of metaphysical vision and technique. The two poles of metaphysics are (a) the nature of the elements

which enter into anything at all, and (b) the nature of the totality of everything. The former gives rise to the problems of ontology, the distinctions between actual and possible existence, unity totality and plurality, appearance essence and reality, universality and individuality, etc. The second or cosmologic pole leads to the problems of time and space, the nature of causal laws, life and mind, and to the question whether there is anything beyond merely natural existence. In neither set of problems can we ignore factual content. We need the results of actual experience to support or limit our free speculation. Yet empirical facts or laws can never be conclusively adequate for metaphysics. We need dialectic method. We must cultivate not only the power of pursuing the logical presuppositions and consequences of our assumptions but also the strength to hunt out logical difficulties, antinomies or paradoxes in our own views. This is our guard against easy but onesided conceptual impressionism. It compels us to seek greater comprehensiveness and thoroughness.

This essential trait of metaphysical technique shows itself in the attitude, already developed by Aristotle, of taking account of our predecessors and discriminating between the true and the false in their diverse views. It shows itself also in his exhaustive surveys of different possible views that are opposed to each other and thus generate *aporiae* or difficulties. The method of seeking truth by finding the discrimination that will harmonize apparently conflicting views is the essence of the scholastic method of St. Thomas and of practical good sense. Modern philosophy since Collier and especially Kant has renewed the still older method of Zeno and Plato, of seeking necessary antinomies or contradictions within our views and thus showing their limitations. This has manifested itself in such diverse fields as the paradoxes of the *Mengenlehre*, which have led to Russell's and Whitehead's theory of types, and to Hegel's logic in which contradiction is essential to the meaning and fruitful application of the concepts of the understanding. While the romantic abuse of the distinction between reason and understanding has discredited this view, there is a growing appreciation of the necessary polarity of ideas, that fruitful thought must use opposite categories in every situation to get adequate insight.

Let me illustrate the distinctive traits of metaphysics by three examples.

(1) In physics the idea of causality is only a postulate that there are causal connections in nature to be discovered. It is a one-sided metaphysical dogma to generalize this into the proposition that the world is a machine in which there is no room for chance or contingency. A more adequate dialectical development of the implications of a world in which the principle of causality prevails shows that contingency of facts and of the laws themselves cannot be eliminated.

(2) The primary task of the biologist is to investigate the phenomena of life and to explain them according to general principles. If he goes on to speculate, as he well may, as to whether life is essential to all existence, or whether the world as a whole can be said to be alive, he clearly enters the realm of metaphysics. If, like Bergson, he tries to explain some specific biologic phenomenon not by specific biologic conditions but by invoking a theory of the nature of life as a whole, we can certainly say that he is confusing metaphysics and natural science to the detriment of both. Similar remarks may be made with regard to the use of the supposed law of evolution by Spencer and others.

(3) The problem of the nature and existence of deity, involving as it does the question whether the world is indifferent or responsive to man's inner striving, is central to any serious attempt at a world-view. Any atheistic or agnostic naturalism that pretends to be more than an arbitrary opinion must face this problem and give adequate consideration to all the issues involved. Yet the neglect of vigorous and appropriate intellectual technique, as well as the difficulty of making disinterested love of truth prevail over intense sectarian loyalties, has brought it about that the results of philosophic discussion on this highest of all themes are now seldom of more than trivial importance. We befuddle the issues with essentially vague and question-begging terms like religious experience, very much as the old Scottish theological realists elevated questionable dogma into a fundamental intuition of the human mind. Nor can we cover the abject poverty of our results by the venerable use of capital letters, so that a belief in Something is deemed sufficient for a book on the philosophy of religious experience.

Assuredly the philosophy of religion must not ignore the light which recent psychologists and anthropologists, like the older historians, have thrown on the phenomena of religious conduct,—though we may wish that some of them, notably J. G. Fraser, had a little more sense of what constitutes evidence for an alleged fact. It is also desirable that the claim of religion to moral value be viewed more critically in the light of the long catalogue of moral evils due to established religion. But in the end a philosophy of religion must involve metaphysics, a theory of mind, the physical world, and the relation between them.

Technically the problem of rational theism is that of combining the notion of personality, borrowed from human analogies, with such unlimited concepts as omniscience, omnipotence and omnibenevolence. The question whether these concepts are compatible, and in what sense, if any, existence can properly be applied to their combination, is admittedly one which has strained human reason without producing results commending universal assent. Nevertheless the effort has not been without great service to philosophy. The ideal of a transcendent and holy being serves to limit our intellectual and moral pride. Whether the gods do or do not exist, we certainly lack their power and moral perfection. It is one of the profoundest lessons which the discipline of the great organized religions has brought to the faithful; and even to a purely intellectual view of the world no lesson can be more important.

*Vision and Technique in Ethics and in the Philosophy of History.*—Twenty-one years ago, when I read my first paper before this Association, my official critic remarked on the scarcity of ethical topics on our programs. Since then the war, the rapid expansion of what is called social science in our universities, and the powerful influence of Professor Dewey, in whose philosophy the cosmic and the existential are completely subordinated to the human and the moral, have all led to greater emphasis on philosophy as a *Lebensanschauung* instead of a *Weltanschauung*. As I survey our work in this field I am tempted to say that while in the field of logic and metaphysics we are inclined to underestimate the value of sound technique, we are, in the field of ethics, disposed to minimize the importance of free or liberal vision.

(Though of course genuine philosophic vision involves its own logical technique.) For moral issues move in an atmosphere that is more highly charged with emotion, and it is more difficult to maintain the detachment which distinguishes philosophic vision from partizan contention. While on the problems of logic and metaphysics the community leaves us free to arrive at any conclusion, this is not equally true of such problems as socialism, birth-control, patriotism, and the like. It is not only difficult to resist the judgment of the public about us as embodied in our daily speech, it is even more difficult to resist the temptation to announce our conclusion before we have had time to consider the complicated evidence for it. Most insidious of all is the danger of subordinating free philosophic inquiry to what we regard as the good of mankind. Indeed, distrust of the pursuit of knowledge for its own sake is a part of the moralist tradition from the days of Seneca and Thomas à Kempis to the group of philosophers that I shall for the sake of identification rather than description refer to as the Chicago School. Philosophy according to this view must be dominated by a sense of its social responsibility. Even the physicist and the biologist may pursue their work only if they emerge from their laboratories with some results that bear on human destiny. Philosophic ethics then, according to this view, must endeavor to help us to solve the problems that distress mankind, how to obtain better political representation, better administration of justice, better milk for babies, and the like.

In a world where narrow selfishness and lack of active good-will are all too frequent, regard for the common good is a bright jewel against a dark background. Moreover, not only is such active good-will admirable in itself, giving a touch of warmth to an otherwise cold world in which the winds of circumstances too often chill our hearts, but we may go further and say that compassion for human suffering is closely allied with spiritual insight. This seems to be the case with the great religious leaders whose insights into the human heart and into the ways of overcoming the miseries that arise from it form the enduring basis of their influence. And here also technique may help vision. Our views as to the nature of knowledge may receive a more definite and richer meaning when applied to the technical problem of education, and

theories of social interests or causation may be illumined when applied to the problems of the legal order.

Yet when all this is said, we must admit with the serene Spinoza that passionate pity is a human weakness. The benevolent desire to play the part of God or Providence to other mortals is a fruitful source of illusion.

It is well not to lose all sympathy with our fellow men. But it is not well so to identify ourselves with them that we become infected with their passionate confusions and compulsions. He who wishes to preach to those in the marketplace must see more than the marketplace. He must go up alone to the mountain to pray, not only to recreate his spirit and learn to articulate his insight, but also to set an example of the wisdom of learning to live alone with one's ideal. Without such ability, society is contemptibly cheap, constituted by a lot of empty ciphers.

The benevolent philosopher is all too apt to be dominated by some narrow or partizan view as to what is good for all men. Too often are those who embark on the sea of moral discovery determined not to go too far from the port whence they start, so that they return only as apologists for what happens to be the established order. And those who call themselves radicals or revolutionists are also dominated by certain catchwords and by a childish eagerness for fashionable novelty, reflected in such words as *advanced*, *emancipated*, *forward-looking*, and the like, so that they are prevented from giving their visionary proposals the critical examination which the detached scientist or philosopher gives to a new theory of the atom.

Reflection on human good is not worthy to be called philosophy unless it is scientifically neutral about the various ethical or moral issues, *i.e.*, unless it regards its own thoroughly logical procedure as more important than any of the results of such critical study. Unless we are willing to examine minutely and critically all the logically possible alternatives to the various accepted moral judgments with the same detachment that the mathematician studies non-Euclidean geometries, the physicist non-Newtonian mechanics, or the biologist new theories of pathology, we are advocates, not genuine philosophers.

Intelligence, we are told, must not become an otiose observer



divorced from human problems, and only by its devoted use can the latter be solved. But real intelligence must recognize its own limitations. The philosopher who wants to be a physician to the ills of the body politic should first study most carefully what is within his competence and what is beyond it. Above all he must critically examine and disinfect his instruments, lest he infect others with his own passionate errors. Nothing is so ill-fitting to the philosopher as intellectual arrogance. Intellectual decency should compel us to recognize that our philosophic studies or reflections do not enable us to take the place of the statesman, the administrator, the social worker, or the others who are more conversant with the facts and agonies of social life. But above all it is incumbent on the philosopher to look fearlessly at the inevitable shadows of human existence, the incurable ills such as death, destruction through cosmic forces beyond us, and, above all, the ignorance which despite all possible growth of knowledge will always be characteristic of finite beings.

Nor need this courageous looking into the darkness depress us. On the contrary, it can give us one of the greatest of all goods, peace through understanding. If philosophy cannot help men in the marketplace to attain the various ends which they so restlessly pursue, it can give them something which may at times be of greater moment. It can teach them to lift their eyes to the heaven above the human scene and in its beauty free themselves from the compulsion of their vain and petty desires.

Too much absorption with human problems is intellectually narrowing and destructive of a certain natural sweetness of life. We need to be liberated from the insatiate preoccupation with improving every shining moment. It is a great help in this direction to see that our present life is but an episode in the history of mankind and the latter is but an insignificant incident in cosmic history. Such wider vision not only diminishes the exaggerated importance which we attach to most of our practical concerns, but is, as an exercise of supreme intellectual energy, a good in itself if anything is good. Human life would be only impoverished if this intrinsic good were minimized. Wisdom is a major part of happiness, as Sophocles said long ago. This brings us to our last point.

*The Philosophy of History.*—In the form of a theodicy or divine plan of human existence the philosophy of history is very ancient; and as a general background for the understanding of the present human scene and its prospects, it is indeed indispensable. Why is it then the most undeveloped branch of philosophy? The answer is that the vision of the old theodicies, the way they conceived the divine plan, was narrow and provincial, so that wider and deeper knowledge of human history has made them obsolete; and those who have rejected all theodicy have not worked out any satisfactory technique for dealing with the fundamental conceptions or ideas of human history. The various so-called scientific theories of history, the geographic, the biologic, the economic, and the like, have all brought some gifts to the understanding for which we may be grateful. But they have all run afoul of the great truth that the facts of history as dated are each unique and unrepeatable, and that the scientific determinism of abstract laws can never exhaust the concrete fulness of the individual thing or event. To try to deduce all history from the laws of climate, Mendelian heredity, or the economic law of supply and demand, is an expression of the monistic mania that obviously involves an insensibility to the rich diversity of human life. Nor do we get much aid from the evolutionary philosophy, according to which all peoples must pass through certain stages in their social institutions. If the western slopes of the Andes provide no cattle the poor Peruvians cannot pass through the pastoral stage despite all the laws of evolution.

Impressed by this difficulty Windelband, Rickert, Münsterberg and the followers of Dilthey have abandoned all attempt to explain human history in terms of laws, an attempt which they regard as appropriate only to physical science. Historical and cultural events are to be appreciated in terms of a philosophy of values. But if a philosophy of value contains significant propositions or categories, they are applicable to classes of events; and we thus have the metaphysical problem of the relation of the universal to the particular over again. We cannot describe any individual event such as the death of Socrates, the fall of the Roman Empire, the industrial revolution, the Dreyfus case, or the world-war, except in universal repeatable traits. And our appreciation

or evaluation of an historical event must relate to some definite phase of it.

The dilemma between law and individuality is solved practically by critical historians like Maitland, who succeed in giving us concrete vivid pictures based on the painstaking weighing of evidence that is characteristic of science and, of course, involves the assumption of general laws. We must recognize not only that historical causation involves social-psychologic as well as physical factors, but that cultural events have a cumulative character which makes us refer to them often as our social heritage. Careful reflection, at any rate, will show no inconsistency but rather mutual implication between true scientific determinism and the notion of unrealized possibilities in history. If there are causes or conditions *sine qua non*, then it is surely significant to maintain that if certain factors had been absent the actual results of history would have been different. Had Alexander the Great been drowned when crossing the Granicus, his generals, as was later shown, could not have carried on his work. Had the Hasmonean revolt against Syria been suppressed, Judaism might not have survived, and Christianity might have remained unborn. Historians do not like to indulge in such reflections as to what might have been. But to assert the significance of any given event involves the judgment that it is a condition *sine qua non* for what followed, and this means that if it had not taken place subsequent history would have been different.

The logical and metaphysical elaboration of historical possibility, and the evidence for what might have been, restore our sense of the living drama of history, the pathos of its tragic defeats as well as the glory of its triumphs.

The vision of history which sees in it lost opportunities or the frustration of finer possibilities makes it more fit for a free and humane ethics than the evolutionary-progressive view according to which every event makes a step upward and onward for the better. The latter logically leads to an indiscriminate worship of brute power when the latter happens to triumph. Only a vision of history in which the finer possibilities of the past are visible to us can support a liberal ethics.

The ancients put the golden age in the past, and the moderns

are inclined to put it in the future. Wise men like Thomas More have placed it nowhere,—Utopia. The writings of Utopias is an exercise of visionaries, but a wholesome corrective to those who slavishly worship the brute actual. The writing of *Ouchronias*, of that which never happened but might have happened, such as Renouvier attempted, would similarly liberalize our view of human history, and give the actual greater significance.

Recent philosophy has developed a most unfortunate fear of otherworldliness. It is the function of art as the vision of beauty, and of religion as the vision of sublimity, to lift us above the dead actualities to the realization of higher or wider possibilities. Theoretic science and philosophy fulfill the same function, but must take care to do so by rigorous logical technique that shows the actual included in the possible, and the possible as a logical extension of the actual. Logic as the exploration of the field of possibility is thus the life-blood of philosophy, and also that which keeps it from disintegrating into arbitrary opinions.

Philosophical vision or contemplation is a most vital and strenuous intellectual activity, if carried on under the exacting rules of logical technique. It is worthy of our utmost devotion.

MORRIS R. COHEN.

COLLEGE OF THE CITY OF NEW YORK.

PROCEEDINGS, 1929

## PROCEEDINGS OF THE AMERICAN PHILOSOPHICAL ASSOCIATION, 1929

### THIRD ANNUAL REPORT OF THE BOARD OF OFFICERS

#### TO THE MEMBERS:

The Seventh International Congress of Philosophy will be held at Oxford, England, September 1-5, 1930. The Organizing Committee of the Sixth Congress has been continued by appointment to coöperate in the plans of the Seventh Congress. The committee has in its hands certain funds as reported in the last annual report of the Board of Officers. It is now authorized to employ those funds according to its recommendation of last year—to promote the representation of the Association at the Seventh Congress. Professor A. C. Armstrong is the secretary.

#### THE REVOLVING FUND FOR PUBLICATION:

The financial statement appears below. The general editor of the Source Books in the History of the Sciences submits the following report:

Since the report, turned in a year ago, some progress has been made. The first volume, *A Source Book in Astronomy*, by Shapley and Howarth, was published in January, 1929, while the second volume, *A Source Book in Mathematics*, by David Eugene Smith, was published in November, 1929. Arrangements have also been made for the third one of the series, *A Source Book in Physics*, to be prepared by Professor William F. Magie of Princeton University, while Professor Frederick Barry of Columbia University is getting the material for a *Source Book in Chemistry* well in hand.

After due deliberation, both President Joseph S. Ames of Johns Hopkins University and Professor R. T. Chamberlin of the University of Chicago have agreed to remain on the Advisory Board, instead of resigning, as was announced a year ago. This is very gratifying, since the original board, it is hoped, will thus remain intact throughout the work of the entire series.

It may also be of interest to state that about 1100 copies of the *Source Book in Astronomy* have been sold. This is very satisfactory to the publishers and also to the Board.

GREGORY D. WALCOTT, *General Editor*.

## CARUS LECTURES:

As indicated in the last report Professor George H. Mead has been selected to deliver the third series of Carus lectures. The lectures will be given at the time of the annual meeting of the Pacific Division at Berkeley, California, in 1930.

The following are appointed as members of the Committee on the Carus Lectures for a term of four years beginning January 1, 1930: E. L. Schaub, *Chairman*, J. H. Tufts, John Dewey, A. O. Lovejoy, H. C. Brown, A. Meiklejohn, A. C. Bennett, H. B. Alexander, and Mrs. Mary Carus.

## AMERICAN COUNCIL OF LEARNED SOCIETIES:

At the annual meeting of the Council the Philosophical Association was represented by its regular delegates and by the secretary. Members are referred to the Bulletins of the Council for a full report.

## BERKELEY ANNIVERSARY:

Professor Charles M. Bakewell reports that a meeting in commemoration of the two hundredth anniversary of the arrival of George Berkeley in America was held on January twenty-third at the Berkeley Divinity School at New Haven, Connecticut. Among papers of interest to members of the Association mention may be made of *Berkeley the Philosopher* by Professor Bakewell and *New Light on Berkeley's American Sojourn* by Professor Benjamin Rand.

## OFFICERS FOR 1929:

*The Board of Officers.*

M. C. Otto, *Chairman*.

J. Loewenberg.

Edgar A. Singer.

Brand Blanshard (C. W. Hendel *pro tem.*).

H. D. Roelofs.

C. W. Morris, *Secretary*.

*Delegates to the Council of Learned Societies.*

F. J. E. Woodbridge (Term expires Dec. 31, 1931).

Wm. A. Hammond (Term expires Dec. 31, 1933).

*Publication Committee.*

A. O. Lovejoy, *Chairman*.

H. R. Smart.

E. A. Burt.



*Representatives on the Carus Committee.*

J. H. Tufts	}	Term expires Dec. 31, 1931.
John Dewey		
A. O. Lovejoy		

H. C. Brown	}	Term expires Dec. 31, 1933.
A. Meiklejohn		
A. C. Bennett		
H. B. Alexander		

*Executive Committee to coöperate with the Seventh International Congress.*W. P. Montague, *Chairman.*

R. B. Perry.

W. E. Hocking.

E. A. Singer.

A. O. Lovejoy.

John J. Coss, *Secretary.*A. C. Armstrong, *Honorary Secretary.*

H. G. TOWNSEND, *Secretary for*  
*the 1929 Board of Officers.*

## FINANCIAL STATEMENT.

## Board of Officers,

American Philosophical Association,

Mr. H. G. Townsend, *Secretary,*

Eugene, Oregon.

*Gentlemen:*

In accordance with your request, I have examined the cash records of the American Philosophical Association at Eugene, Oregon, for the year ended December 31, 1929. Herewith, I submit the statements of receipts and disbursements of the General Treasury and of the Revolving Fund.

I have examined the sources and authorizations of both receipts and disbursements for both funds and I have found them entirely in agreement with the records of your secretary. I have also verified the balances at the banks.

I certify that, in my opinion, the accompanying statements of the cash receipts and disbursements of the General Treasury and the Re-

volving Fund of the American Philosophical Association truly reflect the cash position of the Association at December 31, 1929.

Very truly yours,

C. L. KELLY,  
Certified Public Accountant.

AMERICAN PHILOSOPHICAL ASSOCIATION.

*Cash Statement, General Treasury, for the Year Ended December 31, 1929.*

Balance—January 1, 1929 ..... \$ 172.69

*Receipts:*

Dues in American Council of Learned Societies—

Eastern Division .....	\$15.12	
Western Division .....	7.39	
Pacific Division .....	2.49	\$ 25.00

For General Treasury—

Eastern Division .....	\$79.25	
Western Division .....	38.75	
Pacific Division .....	13.00	\$131.00

For Printing the Annual Report—

Eastern Division .....	\$94.97	
Western Division .....	46.43	
Pacific Division .....	15.57	\$156.97

Total Receipts ..... \$ 312.97

Total ..... \$ 485.66

*Disbursements:*

Expenses of Delegates to American Council of Learned Societies .....

Societies .....	\$ 39.77	
1929 Dues American Council of Learned Societies .....	25.00	
Printing Annual Report .....	156.98	
General expenses (auditing, stamps, stationery, etc.) .....	32.65	254.40

Balance—December 31, 1929

(United States National Bank, Eugene, Oregon) ..... \$ 231.26

*Cash Statement, Revolving Fund for Publication, for Year Ended  
December 31, 1929.*

Balance—January 1, 1929 ..... \$8,589.68

*Receipts:*

Interest—January 1 to June 30, 1929 .....	\$128.20	
Royalties .....	337.90	
Interest—July 1 to December 31, 1929 .....	133.66	599.76

Total ..... \$9,189.44

*Disbursements:*

Vera Sanford—postage, insurance, etc. ....	\$ 8.09	
David Eugene Smith .....	85.00	93.09
		<hr/>
<i>Balance, December 31, 1929</i>		
(First National Bank, Eugene, Oregon) .....	\$9,096.35	<hr/>

## WESTERN DIVISION

*President:* M. C. OTTO.

*Vice-President:* A. E. AVEY.

*Secretary-Treasurer:* C. W. MORRIS.

*Executive Committee:* The foregoing officers and T. V. SMITH, G. P. CONGER, and W. A. GAMMERTSFELDER.

The thirtieth annual meeting of the Western Division was held at the University of Cincinnati, March 28-30, 1929.

The following papers were read:

The Criterion of Science as Proposed by Newton....LOUIS T. MORE.  
The Contingency and Necessity in Nature..HAROLD CHAPMAN BROWN.  
Foundation for Moral Leadership: An Announcement.

WM. ALLISON SHIMER.

The Theory of Perspectives as an Interpretation of Functional Analysis.  
THEODORE T. LAFFERTY.

Existence.....A. CORNELIUS BENJAMIN.

The Law of Contradiction: Its Logical Status.....ALBERT E. AVEY.

The Perception of Movement in the Philosophies of Descartes and  
Bergson.....CHARLES B. VIBBERT.

Cognitive Processes in Instinctive Action.....A. C. GARNETT.

Nature, Mind, and Congruence.....DONALD A. PIATT.

Psychology and Hedonism.....W. B. MAHAN.

Continuity, the Form of Forms in Charles Peirce.

CHARLES HARTSHORNE.

Plato's Threefold Doctrine of Ideas.....G. A. TAWNEY.

The Platonic Forms as Numbers.....B. A. G. FULLER.

The Presidential Address: On the Notion of Value.

DEWITT H. PARKER.

It was recommended by the Executive Committee and adopted by vote that the annual dues for membership in the Western Division be increased from \$1.00 to \$2.00.

It was agreed that the next meeting should be at Christmas, 1929, in

joint session with the Eastern Division at a place in or near New York City satisfactory to the Eastern Division.

A motion was adopted calling for a report at the next meeting from the Executive Committee, or a committee appointed by it, on qualifications required for membership in the Western Division.

The following resolution was adopted to be spread upon the minutes:

Word has come to us of the sudden death on March 29 of Professor R. M. Wenley of the University of Michigan, a member of our Association. Professor Wenley has been Professor of Philosophy in the University of Michigan through the life of a generation, instructing thousands of college students; he published philosophical works which contributed to philosophical thought and exerted a wide influence; he lived in an intimate circle of friends in enjoyment of the intellectual and idealistic life. This meeting desires to place in its records a deep appreciation of his contributions to American philosophy, of his nobility of character, and of the sense of loss which his death brings. We extend our warmest sympathy to his colleagues and to his family.

A resolution of hearty appreciation and cordial thanks was unanimously voted the Graduate School and the Department of Philosophy, University of Cincinnati, for hospitality throughout the meeting.

On recommendation of the Executive Committee the following persons were elected to active membership in the Division: Howard O. Eaton, A. C. Garnett, G. R. Geiger, Kurt F. Leidecker, Virgil Michel, O. O. Norris, Karl Schmidt, Bonon Tapper, C. De Boer, P. L. Delargy, H. T. Houf, Charles Hartshorne.

The following report of the treasurer was presented and approved. The report is as of April 1, 1929.

*Receipts:*

Balance brought forward .....	\$364.76
Membership dues .....	187.25
Interest on savings .....	9.83

Total ..... \$561.84

*Disbursements:*

Expenses of the joint meeting 1927 .....	\$ 53.54
Proceedings of 1927 .....	21.35
Printing the Annual Report .....	16.66
Dues of the Division in the American Philosophical Association .....	36.50
Dues of the Division to the A. C. L. S. ....	7.18
Stationery .....	7.75
Postage .....	11.97
Printing .....	22.25
Multigraphing .....	4.18
Stenographic service .....	72.95
Mimeographing abstracts .....	49.46

Exchange on checks .....	5.35
Incidentals, Cincinnati meeting .....	7.70
	<hr/>
Total .....	\$321.89
	<hr/>
Balance on Hand .....	\$239.95
	<hr/> <hr/>

T. V. SMITH, *Secretary*.

#### PACIFIC DIVISION.

*President*: J. LOEWENBERG.

*Vice-President*: ETHEL SABIN-SMITH.

*Secretary-Treasurer*: H. D. ROELOFS.

*Executive Committee*: The foregoing officers and W. H. STUART (1931), D. S. MACKAY (1930), R. M. BLAKE (1930), H. B. ALEXANDER, *ex officio* for one year.

The sixth annual meeting was held at the University of Southern California, December 27-28, 1929. The following program was presented:

The Logical Root of Modern Life.....GEORGE REBEC.

A Defense of Hedonism.....WILLIAM SAVERY.

Phenomenology of Æsthetic Experience and Philosophy of Beauty.  
GUSTAV MULLER.

The Subjectivism of the Neo-Pragmatic Theory of Knowledge.

PAUL SCHILPP.

Symposium: The Contribution of Modern Psychology to Philosophy.

HAROLD CHAPMAN BROWN, ETHEL SABIN-SMITH, and

SHEPHERD IVORY FRANZ.

A Preface to Ethics.....HENRY WALDGRAVE STUART.

The Ethical Implications of Scientific Thought...ROBERT S. DENISON.

The Possibility of Ethics.....GEORGE P. ADAMS.

The Presidential Address: Drama as a Cosmic Category.

HARTLEY BURR ALEXANDER.

It was voted to recommend to the Board of Officers that membership in one Division should be recognized as membership in all Divisions of the Association, and that transfers from one Division to another be automatic.

On recommendation of the Executive Committee it was voted that if available funds exist an Annual Printed Letter to members be published, to be edited, printed, and posted by the secretary; and that it

include the constitution, list of members, and abstracts of the papers presented at the meeting.

Announcement was made by Professor Mackay of a proposed Seventeenth Century Text Society. On recommendation of the Executive Committee the project was endorsed and Professor Mackay was appointed to represent the Division.

It was voted unanimously that the Division express its appreciation of the unusual hospitality of the University of Southern California, the University of California at Los Angeles, Pomona College, and Scripps College.

The Secretary was instructed to thank the Huntington Library and the California Institute of Technology for courtesies extended to the members of the Division.

The following new members were elected: Una Bernard Sait, Gertrude Virginia Sanford, Lyman Bryson, Howard Brinton, Robert S. Denison, John Wright Buckham, E. C. Moore, William S. Morgan, John Dickinson Register, Kenneth J. Saunders, John Wilkie.

WILBUR LONG, *Secretary pro tempore*.

#### EASTERN DIVISION.

*President:* EDGAR A. SINGER.

*Vice-President:* CHARLES A. BENNETT.

*Secretary-Treasurer:* BRAND BLANSHARD (C. W. HENDEL, *pro tem.*).

*Executive Committee:* R. C. LODGE (1930), GRACE A. DE LAGUNA (1930), W. K. WRIGHT (1931), C. W. HENDEL (1931), H. W. SCHNEIDER (1932), C. J. DUCASSE (1932), M. R. COHEN, *ex officio* for one year.

*Nominating Committee:* F. J. E. WOODBRIDGE, *Chairman*, FRANK THILLY, E. B. MCGILVARY.

The twenty-ninth annual meeting was held jointly with the Western Division in New York, December 30-31, 1929, at Columbia University. The following program was presented:

#### *The Philosophy of John Dewey.*

Experience and Dialectic.....F. J. E. WOODBRIDGE.  
Action and Certainty.....W. E. HOCKING.  
Pragmatism and Current Thought.....C. I. LEWIS.

#### *Logic.*

*Sine Qua Non* Conditions.....H. D. ROELOFS.  
The Paradox and Principle of Inference.....D. F. SWENSON.

- The Method of Deduction.....M. FARBER.  
 John Dewey's Theory of Judgment.....J. RATNER.

*Social Philosophy.*

- Some Limitations in Dr. Dewey's Educational Philosophy..H. HORNE.  
 The Place of Values in Economics.....J. R. GEIGER.  
 The Doctrine of the Situation and the Method of Social Science.

P. W. WARD.

- A Redefinition of the Individual.....J. D. STOOFS.

- Presidential Address: Vision and Technique in Philosophy.

M. R. COHEN.

*The Significance for Philosophy of Recent Theories of Physics.*

- The Philosophical Consequences of the Theory of Relativity.

F. C. S. NORTHROP.

- The Theory of Relativity: For What is it a Disguise?

JAMES MACKAYE.

- The Significance of Recent Physics for Æsthetics....W. A. SHIMER.

- Discussion: Value as any Object of any Interest.

D. H. PARKER, C. M. PERRY, H. H. DUBS.

- Essences, Universals and Things.....W. SWABEY.

- Plato's Theory of Ideas.....G. A. TAWNEY.

- Meanings and Their Exemplifications.....C. A. BAYLIS.

- Presidential Address: Meditation on a Hill.....M. C. OTTO.

The business meeting was called to order at 5 p.m., Tuesday, December 31st, by President Cohen. The minutes of the twenty-eighth annual meeting were approved as printed.

*Treasurer's Report.*

*Receipts.*

Balance brought forward .....	\$1,263.03
Membership Dues .....	552.15
Total .....	\$1,815.18

*Expenditures.*

Dues of Division to American Philosophical Association..	\$ 79.25
Printing of Annual Report .....	94.97
Dues of Division in A. C. L. S. ....	15.12
Contribution A. C. L. S. Publicity Bureau .....	50.00
Annual Meeting 1928, Sundries .....	25.50



Clerical Assistance .....	16.18
Printing envelopes, due bills .....	15.25
Stencils .....	3.80
Printing stationery, envelopes, due bills .....	57.39
Printing Announcements .....	10.97
Clerical Assistance .....	17.50
Debit on exchange Canadian check .....	.15

Total ..... \$ 386.08

Balance on hand ..... \$1,429.10

Audited by { A. H. JONES  
                  J. H. DUNHAM

*Nominating Committee.* The Committee reported the following nominations for office in the Division for the year 1930:

For President, E. A. Singer.

For Vice-President, C. A. Bennett.

For new members of the Executive Committee, C. W. Hendel (to fill the unexpired term of C. A. Bennett, 1931); H. W. Schneider (1932), C. J. Ducasse (1932).

The nominations were accepted by the meeting.

*New Members.* The following were recommended by the Executive Committee and elected: *Active members:* Andrew P. Uchenko, Gardner Williams, Cooper H. Langford, Felix S. Cohen, Wendell M. Thomas, Isabel F. Leavenworth, Morris B. Storer, Bruce W. Brothers-ton, Robert Calhoun, Houston Peterson, Howard B. Jefferson, Ruth L. Saw, Eugene G. Bewkes, Donald C. Williams, James W. Miller, Frank C. Becker, Philip M. Kretschmann, Horace L. Friess, Alban G. Widgery, J. C. Chatterji, S. L. Joshi, Sarah Brown, Scott M. Buchanan, James Burnham, Richard McKeon. *Associate members:* R. V. Gogate, Lydia E. MacKnight.

*General Business.* The attention of all members was called to Grants in Aid of Research and Fellowships in the Humanities, offered by the American Council of Learned Societies.

The Division expressed the wish that the meeting for the Carus Lectures should be held in August or September of 1931 instead of December, 1930.

It was voted to hold the thirtieth annual meeting of the Division in December, 1930.

A question being raised concerning the possibility of an appointments-office in connection with the Association, it was voted to refer the matter to the Executive Committee.

The President expressed appreciation of the services of the acting Secretary.

*Vote of Appreciation.* It was voted that the Eastern and Western Division of the American Philosophical Association express their deep appreciation of the generous and thoughtful hospitality of Columbia University on the occasion of the present Joint Meeting of the two Divisions.

C. W. HENDEL, *Acting Secretary-Treasurer.*

#### LIST OF MEMBERS.

Members should notify the secretary of their division promptly of any changes to be made in the list of names and addresses.

Adams, Professor George P., University of California, Berkeley, Calif.  
Adler, Professor Felix, Columbia University, New York City.  
Aikins, Professor H. Austen, Western Reserve University, Cleveland, Ohio.

Alexander, Professor H. B., Scripps College, Claremont, Calif.  
Alles, Professor Adam, St. Johns College, Annapolis, Md.  
Ames, Professor E. S., University of Chicago, Chicago, Ill.  
Ames, Van Meter, University of Cincinnati, Cincinnati, Ohio.  
Anderson, Professor Frederick, Stanford University, Calif.  
Anderson, Professor Fulton H., University of Toronto, Toronto, Canada.

Angier, Dr. R. P., Yale University, New Haven, Conn.  
Apple, President Henry H., Franklin and Marshall College, Lancaster, Pa.

Armstrong, Professor A. C., Wesleyan University, Middletown, Conn.  
Avey, Professor Albert E., Ohio State University, Columbus, Ohio.  
Ayres, Dr. Edith, 57 Horatio St., New York City.  
Baillie, Professor John, University of Toronto, Toronto, Canada.  
Bakewell, Professor C. M., Yale University, New Haven, Conn.  
Baldwin, Dr. J. M., c/o Harris, Forbes and Co., New York City.  
Balz, Professor Albert, University of Virginia, Charlottesville, Va.  
Barrett, Professor Clifford L., University of California, Los Angeles, Calif.

Baylis, Dr. Charles A., Brown University, Providence, R. I.  
Becker, Mr. Frank C., Lehigh University, Bethlehem, Pa.  
Bellperch, Professor R. J., St. Xavier College, Cincinnati, Ohio.  
Benjamin, Professor A. C., University of Illinois, Urbana, Ill.  
Bennett, Professor C. A., Yale University, New Haven, Conn.

- Bennion, Professor Milton, University of Utah, Salt Lake City, Utah.  
 Bernstein, Professor B. A., University of California, Berkeley, Calif.  
 Bewkes, Mr. E. G., Colgate University, Hamilton, N. Y.  
 Birch, Professor J. Bruce, Wittenberg College, Springfield, Ohio.  
 Bixler, Professor Julius S., Smith College, Northampton, Mass.  
 Black, Dr. G. A., 156 Park Street, Gardner, Mass.  
 Blake, Professor R. M., University of Washington, Seattle, Wash.  
 Blanshard, Professor Brand, Swarthmore College, Swarthmore, Pa.  
 Blanshard, Mrs. Frances B., Swarthmore College, Swarthmore, Pa.  
 Blote, Dr. Hal C., Pacific Grove, Calif.  
 Boas, Professor George, Johns Hopkins University, Baltimore, Md.  
 Bode, Professor B. H., Ohio State University, Columbus, Ohio.  
 Bogoslovsky, Dr. Boris B., 682 Fort George Ave., New York City.  
 Boodin, Professor J. E., University of California, Los Angeles, Calif.  
 Boughton, Professor Fred G., Denison University, Granville, Ohio.  
 Boynton, Professor Richard W., University of Buffalo, Buffalo, N. Y.  
 Bradshaw, Professor M. J., Bangor Theological Seminary, Bangor, Maine.  
 Brandt, Professor Francis B., 4337 Larchwood Ave., Philadelphia, Pa.  
 Brett, Professor J. S., Toronto University, Toronto, Canada.  
 Brightman, Professor Edgar S., Box 35, Newton Center, Mass.  
 Brinton, Professor Howard, Scripps College, Claremont, Calif.  
 Britan, Professor Halbert H., Bates College, Lewiston, Maine.  
 Brogan, Professor A. P., University of Texas, Austin, Texas.  
 Brotherston, Mr. Bruce W., St. Lawrence University, Canton, N. Y.  
 Brown, Dr. A. E., University of Washington, Seattle, Wash.  
 Brown, Professor George, Amherst College, Amherst, Mass.  
 Brown, Professor H. C., Stanford University, Calif.  
 Brown, Sarah, Wells College, Aurora, N. Y.  
 Brown, Professor William Adams, Union Theological Seminary, New York City.  
 Bryan, President W. L., Indiana University, Bloomington, Ind.  
 Bryson, Mr. Lyman, 4291 Hermosa Way, San Diego, Calif.  
 Buchanan, Mr. Scott M., University of Virginia, Charlottesville, Va.  
 Buchner, Professor E. F., Johns Hopkins University, Baltimore, Md.  
 Buckham, Professor John Wright, Pacific School of Religion, Berkeley, Calif.  
 Buermeyer, Dr. Lawrence, New York University, New York City.  
 Burnham, Mr. James, Washington Square College, New York University, New York City.  
 Burr, Professor E. A., University of Chicago, Chicago, Ill.

- Bush, Professor Wendell T., Columbia University, New York City.  
Bussey, Professor Gertrude C., Goucher College, Baltimore, Md.  
Butler, President N. M., Columbia University, New York City.  
Butt, Professor S. McClellan, Pennsylvania State College, State College, Pa.  
Caldwell, Professor M. A., University of Louisville, Louisville, Kentucky.  
Calhoun, Mr. Robert, Yale University, New Haven, Conn.  
Calkins, Professor Mary W., 22 Bellevue Street, Newton, Mass.  
Campbell, Professor H. G., Morningside College, Sioux City, Iowa.  
Campbell, Professor Ivy G., Wells College, Aurora, N. Y.  
Carmichael, Professor R. D., University of Illinois, Urbana, Ill.  
Carr, Professor H. Wildon, University of Southern California, Los Angeles, Calif.  
Case, Professor Mary S., Wellesley College, Wellesley, Mass.  
Cattell, Dr. J. McKeen, Garrison-on-Hudson, N. Y.  
Chambers, Dr. Lawson P., Washington University, St. Louis, Mo.  
Chandler, Dr. Albert R., Ohio State University, Columbus, Ohio.  
Chanter, Professor William G., Wesleyan University, Middletown, Conn.  
Chao, Dr. Yuen Ren, Tsing Hua College, Peking, China.  
Chatterji, Mr. J. C., International School of Vedic Research, New York City.  
Chidsey, Professor Harold, 13 Brown Street, Providence, R. I.  
Christ, Dr. Paul S., Liberty High School, Bethlehem, Pa.  
Clark, Professor Mary E., Smith College, Northampton, Mass.  
Clarke, Dr. Francis P., University of Pennsylvania, Philadelphia, Pa.  
Cohen, Mr. Felix S., New York University, New York City.  
Cohen, Mr. Joseph W., University of Colorado, Boulder, Colo.  
Cohen, Professor Morris R., College of the City of New York, New York City.  
Coleman, Professor H. T. J., University of British Columbia, Vancouver, B. C.  
Conger, Dr. George Perrigo, University of Minnesota, Minneapolis, Minn.  
Cory, Professor C. E., Washington University, St. Louis, Mo.  
Cory, Professor H. E., University of Washington, Seattle, Wash.  
Coss, Professor John J., Columbia University, New York City.  
Costello, Professor H. T., Trinity College, Hartford, Conn.  
Cowling, President D. J., Carleton College, Northfield, Minn.  
Cox, Dr. George Clarke, 274 Madison Ave., New York City.

- Crago, Professor A., Peru State College, Peru, Nebraska.  
Craig, Dr. Wallace, P. O. Box 554, Brookline, Mass.  
Crane, Professor Ester, Goucher College, Baltimore, Md.  
Crawford, Professor J. F., Beloit College, Beloit, Wis.  
Crawford, Professor Lucy S., Sweet Briar College, Sweet Briar, Va.  
Cresswell, Professor John R., University of West Virginia, Morgantown, W. Va.  
Crooks, Professor Ezra B., Delaware University, Newark, Del.  
Crowley, Professor W. A., University of Cincinnati, Cincinnati, Ohio.  
Cunningham, Professor G. Watts, Cornell University, Ithaca, N. Y.  
Curtis, Professor M. M., Western Reserve University, Cleveland, Ohio.  
Cutler, Professor Anna A., Smith College, Northampton, Mass.  
Davies, Professor A. E., Colorado College, Colorado Springs, Colo.  
Dearborn, Dr. G. V. N., U. S. Veterans' Hospital, Number 81, New York (Bronx).  
DeBoer, Professor C., University of Arkansas, Fayetteville, Ark.  
Deglman, Professor G. A., Rockhurst College, Kansas City, Mo.  
DeLargy, Dr. P. L., University of Illinois, Urbana, Ill.  
Demos, Dr. Raphael, Harvard University, Cambridge, Mass.  
Denison, Professor Robert S., Pomona College, Claremont, Calif.  
Dennes, Professor W. R., University of California, Berkeley, Calif.  
Dewey, Professor John, Columbia University, New York City.  
Diehl, Professor Frank, Hanover College, Hanover, Indiana.  
Dickinson, Professor F. W., University of Denver, Denver, Colo.  
Dodge, Professor Raymond, Yale University, New Haven, Conn.  
Dodson, Rev. G. R., Washington University, St. Louis, Mo.  
Dolson, Dr. Grace N., St. Mary's Free Hospital for Children, 407 West 34th St., New York City.  
Dotterer, Professor Ray H., Franklin and Marshall College, Lancaster, Pa.  
Dorsee, Professor Carl W., Pennsylvania College for Women, Pittsburgh, Pa.  
Drake, Professor Durant, Vassar College, Poughkeepsie, N. Y.  
Dubs, Professor Homer H., Marshall College, Huntington, W. Va.  
Ducasse, Professor C. J., Brown University, Providence, R. I.  
Dunham, Dr. James H., The Temple University, Philadelphia, Pa.  
Duvall, Professor T. G., Ohio Wesleyan University, Delaware, Ohio.  
Dykhuizen, Professor George, University of Vermont, Burlington, Vt.  
Eames, Professor H. P., Scripps College, Claremont, Calif.  
Eaton, Professor Howard O., University of Oklahoma, Norman, Okla.  
Eaton, Professor R. M., Harvard University, Cambridge, Mass.

- Eckardt, Professor L. R., Depauw University, Greencastle, Ind.  
Elkus, Dr. Savilla A., 434 W. 120th Street, New York City.  
Emery, Professor Stephen A., University of North Carolina, Chapel Hill, N. C.  
Ericksen, Professor E. E., University of Utah, Salt Lake City, Utah.  
Evans, Professor D. Luther, College of Wooster, Wooster, Ohio.  
Everett, Professor Walter G., Brown University, Providence, R. I.  
Ewer, Professor B. C., Pomona College, Claremont, Calif.  
Farber, Dr. Marvin, University of Buffalo, Buffalo, N. Y.  
Faris, Professor Ellsworth, University of Chicago, Chicago, Ill.  
Farley, Professor J. H., Lawrence College, Appleton, Wis.  
Ferm, Professor Vergilius, College of Wooster, Wooster, Ohio.  
Fisher, Dr. D. Warren, New Canaan, Conn.  
Fite, Professor Warner, Princeton University, Princeton, N. J.  
Fletcher, Professor O. O., 1028 St. John's Place, Brooklyn, N. Y.  
Flewelling, Professor Ralph T., University of Southern California, Los Angeles, Calif.  
Friess, Mr. Horace L., Columbia University, New York City.  
Frye, Dr. Myrton, Oberlin College, Oberlin, Ohio.  
Fuller, Professor B. A. G., University of Cincinnati, Cincinnati, Ohio.  
Gabbert, Professor M. P., University of Pittsburgh, Pittsburgh, Pa.  
Gamble, Professor Eleanor A., Wellesley College, Wellesley, Mass.  
Gammertsfelder, Professor W. S., Ohio University, Athens, Ohio.  
Garnett, Professor A. C., Butler University, Indianapolis, Indiana.  
Geiger, Professor G. R., Bradley Polytechnic Institute, Peoria, Ill.  
Geiger, Professor Joseph R., College of William and Mary, Williamsburg, Va.  
Geyer, Professor Denton L., 5725 Kimbark Ave., Chicago, Ill.  
Gifford, Professor A. R., University of Vermont, Burlington, Vt.  
Gilbert, Dr. Katherine E., Duke University, Durham, N. C.  
Gillet, Professor A. L., Hartford Theological Seminary, Hartford, Conn.  
Given, Dr. P. L., 357 Lincoln Ave., Orange, N. J.  
Givler, Professor Robert C., Tufts College, Mass.  
Gotshalk, Dr. D. W., University of Illinois, Urbana, Ill.  
Green, Mrs. Lois Shepherd, 805 Green Street, Urbana, Ill.  
Green, Professor Theodore M., Princeton University, Princeton, N. J.  
Griffin, Professor E. H., Johns Hopkins University, Baltimore, Md.  
Guthrie, Professor E. R., University of Washington, Seattle, Wash.  
Guthrie, Rev. Kenneth S., 1177 Warburton Ave., North Yonkers, N. Y.  
Hack, Professor R. K., University of Cincinnati, Cincinnati, Ohio.

- Hammond, Professor W. A., Cornell University, Ithaca, N. Y.  
 Harkness, Professor Georgia E., Elmira College, Elmira, N. Y.  
 Harris, Dr. Marjorie S., Randolph-Macon Woman's College, Lynchburg, Va.  
 Hartman, Professor Henry G., University of Cincinnati, Cincinnati, Ohio.  
 Hartshorne, Dr. Charles, University of Chicago, Chicago, Ill.  
 Hausheer, Hermann, College of Puget Sound, Tacoma, Washington.  
 Hawes, Professor R. P., Goucher College, Baltimore, Md.  
 Headley, Professor L. A., Carleton College, Northfield, Minn.  
 Heath, Professor Louise R., Hood College, Frederick, Md.  
 Hendel, Professor Charles W., McGill University, Montreal, Canada.  
 Henderson, Professor Ernest N., Adelphi College, Brooklyn, N. Y.  
 Henke, Professor Frederick G., Allegheny College, Meadville, Pa.  
 Hibben, President J. G., Princeton University, Princeton, N. J.  
 Hildebrand, Professor Carroll DeWitt, DePauw University, Greencastle, Ind.  
 Hill, Dr. A. Ross, 717 Pioneer Trust Bldg., Kansas City, Mo.  
 Hinman, Professor E. L., University of Nebraska, Lincoln, Nebr.  
 Hitchcock, Dr. Clara M., 1923 East 71st Street, Cleveland, Ohio.  
 Hite, Professor L. F., New Church Theological School, Cambridge, Mass.  
 Hocking, Professor W. E., Harvard University, Cambridge, Mass.  
 Hollands, Professor E. H., University of Kansas, Lawrence, Kansas.  
 Holmes, Professor Jesse H., Swarthmore College, Swarthmore, Pa.  
 Holtzclaw, Professor B. C., Richmond University, Richmond, Va.  
 Hook, Dr. Sidney, Washington Square College, New York City.  
 Horne, Professor H. H., 341 Summit Ave., Leonia, N. J.  
 Horton, Professor W. M., Oberlin College, Oberlin, Ohio.  
 Hoskyn, Dr. Fred P., Yale University, New Haven, Conn.  
 Houf, Professor H. T., Ohio University, Athens, Ohio.  
 Howard, Professor D. T., Northwestern University, Evanston, Ill.  
 Howes, Dr. Ethel P., Smith College, Northampton, Mass.  
 Hudson, Professor J. W., University of Missouri, Columbia, Mo.  
 Hughes, Professor Percy, Lehigh University, Bethlehem, Pa.  
 Husik, Professor Isaac, University of Pennsylvania, Philadelphia, Pa.  
 Hutcheon, Professor R. J., 5659 Woodlawn Ave., Chicago, Ill.  
 Iredell, Francis Raymond, Pomona College, Claremont, Calif.  
 Johnson, Professor George, Lincoln University, Pa.  
 Johnson, Professor Paul E., Hamline University, St. Paul, Minn.  
 Johnson, Professor R. B. C., Princeton University, Princeton, N. J.



- Jones, Professor A. H., University of Rochester, Rochester, N. Y.  
Jones, Professor A. L., Columbia University, New York City.  
Jones, Professor Rufus M., Haverford College, Haverford, Pa.  
Jordan, Professor E., Butler University, Indianapolis, Ind.  
Joshi, Mr. S. L., Dartmouth College, Hanover, N. H.  
Kantor, Professor J. Robert, Indiana University, Bloomington, Ind.  
Kellogg, Professor Edwin H., Skidmore College, Saratoga Springs, N. Y.  
Kelly, Professor Thomas R., Earlham College, Richmond, Ind.  
Kemmerer, Mrs. Mable C., State Laboratory, Old Capital, Jackson, Miss.  
Kennedy, Dr. Gail, Amherst College, Amherst, Mass.  
Kerby-Miller, Professor S., University of Missouri, Columbia, Mo.  
Keyser, Professor Cassius J., Columbia University, New York City.  
Kirn, Dean G. J., Northwestern College, Naperville, Ill.  
Knight, Edward C., Principia Junior College, 5539 Page Blvd., St. Louis, Mo.  
Knudson, Professor Albert C., 72 Mt. Vernon Street, Boston, Mass.  
Kretschmann, Mr. Philip M., Princeton University, Princeton, N. J.  
Krusé, Professor Cornelius F., Wesleyan University, Middletown, Conn.  
Ladd-Franklin, Dr. Christine, Columbia University, New York City.  
de Laguna, Professor Grace A., Bryn Mawr College, Bryn Mawr, Pa.  
de Laguna, Professor Theodore, Bryn Mawr College, Bryn Mawr, Pa.  
Lamprecht, Professor Sterling P., Amherst College, Amherst, Mass.  
Landes, Professor Margaret W., Constantinople College for Women, Constantinople, Turkey.  
Lane, Professor W. B., University of Toronto, Toronto, Canada.  
Langford, Mr. Cooper H., University of Michigan, Ann Arbor, Michigan.  
Lanz, Professor H. C., Stanford University, Calif.  
Larrabee, Professor Harold A., Union College, Schenectady, N. Y.  
Leary, Professor D. B., University of Buffalo, Buffalo, N. Y.  
Leavenworth, Isabel F., Barnard College, New York City.  
Leidecker, Dr. Kurt F., 22 King St., Oberlin, Ohio.  
Leighton, Professor J. A., Ohio State University, Columbus, Ohio.  
Lenzen, Professor V. F., University of California, Berkeley, Calif.  
Levinson, Professor Ronald B., University of Maine, Orono, Me.  
Lewis, Professor Clarence I., Harvard University, Cambridge, Mass.  
Lewis, Dr. Leicester C., Gate House Episcopal Academy, Villa Nova, Pa.

Liddell, Professor A. Forbes, Florida State College for Women, Tallahassee, Fla.

Lindley, President E. H., University of Kansas, Lawrence, Kansas.

Lodge, Professor R. C., University of Manitoba, Winnipeg, Canada.

Loeb, Dr. Elizabeth N., 95 Prescott St., Cambridge, Mass.

Loewenberg, Professor J., University of California, Berkeley, Calif.

Long, Professor Wilbur H., University of Southern California, Los Angeles, Calif.

Lorimer, Dr. Frank, Wellesley College, Wellesley, Mass.

Lough, Professor J. E., 285 Madison Ave., New York City.

Lovejoy, Professor A. O., Johns Hopkins University, Baltimore, Md.

Lyman, Professor Eugene W., Union Theological Seminary, Broadway at 120th Street, New York City.

MacCallum, Professor H. R., Queen's University, Kingston, Ontario.

MacDougall, Professor R. M., 228 Midland Ave., Montclair, N. J.

MacGiffert, President A. C., Union Theological Seminary, New York City.

Macintosh, Professor Douglas C., Yale University, New Haven, Conn.

Mackay, Professor D. S., University of California, Berkeley, Calif.

MacKaye, Dr. James, Dartmouth College, Hanover, N. H.

Mackenzie, President William D., Hartford, Conn.

MacKinnon, Professor Flora Isabel, Wellesley College, Wellesley, Mass.

MacLennan, Professor S. F., Oberlin College, Oberlin, Ohio.

MacMillan, Dr. D. F., Board of Education, Chicago, Ill.

McClure, Professor M. T., University of Illinois, Urbana, Ill.

McCormack, Mr. Thomas J., La Salle, Ill.

McGill, Dr. V. J., Barnard College, New York City.

McGilvary, Professor E. B., University of Wisconsin, Madison, Wis.

McIntire, Professor Walter O., Wheaton College, Norton, Mass.

McKeon, Professor Richard, Columbia University, New York City.

Mahan, Professor W. B., University of Arkansas, Fayetteville, Ark.

Marhenke, Dr. Paul, University of California, Berkeley, Calif.

Marlatt, Professor Earl B., 9 Willow Street, Boston, Mass.

Marti, Dr. Fritz, Goucher College, Baltimore, Md.

Martin, Mr. Everett D., People's Institute, New York City.

Martin, Professor Herbert, University of Iowa, Iowa City, Iowa.

Martin, Professor S. G., Northwestern University, Evanston, Ill.

Marsh, Professor H. D., College of the City of New York, New York City.

Marvin, Professor W. T., Rutgers College, New Brunswick, N. J.

- Mason, Professor M. Phillips, Bowdoin College, Brunswick, Maine.  
Mead, Professor George H., University of Chicago, Chicago, Ill.  
Meiklejohn, Professor Alexander, University of Wisconsin, Madison, Wis.  
Melrose, J. A., James Millikin University, Decatur, Ill.  
Melvin, Professor Georgiana, Mills College, Calif.  
Miller, Professor Dickinson S., c/o Thomas Cook & Son, Stephansplatz 2, Vienna.  
Miller, Professor Hugh, University of California, Los Angeles, Calif.  
Miller, Mr. James W., Harvard University, Cambridge, Mass.  
Miller, Professor John W., Williams College, Williamstown, Mass.  
Mitchell, Professor Arthur, 547 W. 157th St., New York City.  
Mitchell, Professor E. T., University of Texas, Austin, Texas.  
Montague, Professor W. P., Columbia University, New York City.  
Moore, Professor Addison W., University of Chicago, Chicago, Ill.  
Moore, Dr. E. C., University of California, Los Angeles, Calif.  
Moore, Professor Edward C., Harvard University, Cambridge, Mass.  
Moore, Professor Jared S., Western Reserve University, Cleveland, Ohio.  
More, Professor Louis T., University of Cincinnati, Cincinnati, Ohio.  
Morgan, Professor W. J., Washburn College, Topeka, Kansas.  
Morgan, Professor W. S., Pacific Unitarian School for the Ministry, 24 Allston Way, Berkeley, Calif.  
Morris, Professor C. W., The Rice Institute, Houston, Texas.  
Morris, Professor Frank E., Connecticut College, New London, Conn.  
Morrow, Professor Glenn R., University of Illinois, Urbana, Ill.  
Mueller, Professor Gustav, University of Oregon, Eugene, Oregon.  
Muir, Professor Ethel G., Lake Erie College, Painesville, Ohio.  
Murphy, Professor Arthur E., University of Chicago, Chicago, Ill.  
Myers, Professor Orvil F., Los Angeles Junior College, Los Angeles, Calif.  
Nelson, Professor Ralph W., Phillips University, Enid, Oklahoma.  
Newlin, Professor W. J., Amherst College, Amherst, Mass.  
Nicholson, J. A., University of Illinois, Urbana, Ill.  
Nicol, Professor Carl C. W., Oberlin College, Oberlin, Ohio.  
Norris, Professor O. O., Ypsilanti State Normal College, Ypsilanti, Mich.  
Northrop, Professor F. C., 1834 Yale Station, New Haven, Conn.  
Norton, Mr. William J., 54 Patton Ave., Princeton, N. J.  
Osgniack, Rev. Professor Augustine, O. S. B., St. Martin's College, Lacey, Wash.

- Otto, Professor M. C., University of Wisconsin, Madison, Wis.  
 Overstreet, Professor H. A., College of the City of New York, New York City.  
 Pace, Professor E. A., Catholic University of America, Washington, D. C.  
 Paine, Dr. E. T., Cornell University, Ithaca, N. Y.  
 Parker, Professor D. H., University of Michigan, Ann Arbor, Mich.  
 Parkhurst, Professor Helen, Barnard College, New York City.  
 Patrick, Professor G. T. W., Iowa State University, Iowa City, Ia.  
 Patterson, Professor Charles H., University of Nebraska, Lincoln, Neb.  
 Patterson, Dean H. P., Oklahoma A. & M. College, Stillwater, Oklahoma.  
 Payne, President Bruce R., Teacher's College, Nashville, Tenn.  
 Payne, Wilfred, University of Wisconsin, Madison, Wis.  
 Penney, President M. E., James Millikin University, Decatur, Ill.  
 Pepper, Professor Stephen C., University of California, Berkeley, Calif.  
 Perry, Professor Charles M., University of Oklahoma, Norman, Okla.  
 Perry, Professor Charner M., University of Texas, Austin, Texas.  
 Perry, Professor Ralph B., Harvard University, Cambridge, Mass.  
 Peterson, Mr. Houston, Colgate University, Hamilton, N. Y.  
 Pfeiffer, Dr. Fred L., 1208 Bloomfield St., Hoboken, N. J.  
 Phillips, Dr. George Blanchard, Miami University, Oxford, Ohio.  
 Piatt, Professor Donald A., University of Texas, Austin, Texas.  
 Picard, Professor Maurice, Dartmouth College, Hanover, N. H.  
 Pillsbury, Professor W. B., University of Michigan, Ann Arbor, Mich.  
 Piper, Professor Raymond F., Syracuse University, Syracuse, N. Y.  
 Porteous, Professor A. J. D., Smith College, Northampton, Mass.  
 Pott, William S. A., General Motors Export Co., Broadway at 57th St., New York City.  
 Powell, Professor Elmer E., Miami University, Oxford, Ohio.  
 Prall, Professor D. W., University of California, Berkeley, Calif.  
 Pratt, Professor J. B., Williams College, Williamstown, Mass.  
 Procter, Professor Thomas Hayes, Wellesley College, Wellesley, Mass.  
 Rand, Dr. Benjamin, Harvard University, Cambridge, Mass.  
 Randall, Dr. J. H., Jr., Columbia University, New York City.  
 Ratner, Dr. Joseph, 1 West 103d St., New York City.  
 Raub, Professor William L., Knox College, Galesburg, Ill.  
 Raymond, Professor George L., Stoneleigh Court, Washington, D. C.  
 Rebec, Professor George, University of Oregon, Eugene, Oregon.

- Reed, Professor J. Frank, Garrett Biblical Institute, Evanston, Ill.  
Register, Professor John Dickinson, College of Puget Sound, Tacoma, Wash.  
Reiser, Professor Oliver L., University of Pittsburgh, Pittsburgh, Pa.  
Rieber, Professor C. H., University of California, Los Angeles, Calif.  
Riesen, Professor E. R., University of Arizona, Tucson, Arizona.  
Riley, Professor Woodbridge, Vassar College, Poughkeepsie, N. Y.  
Roback, Dr. A. A., Harvard University, Cambridge, Mass.  
Robbins, R. Reginald C., Union Club, 8 Park Street, Boston, Mass.  
Robinson, Professor D. S., University of Indiana, Bloomington, Ind.  
Robinson, Professor Elmo A., State Teachers College, San Jose, Calif.  
Robinson, Richard, Cornell University, Ithaca, N. Y.  
Roelofs, Professor Howard Dykema, Stanford University, Calif.  
Rohrbaugh, Professor L. G., Dickinson College, Carlisle, Pa.  
Runkle, Professor Erwin W., Penn State College, Pa.  
Ryan, Professor James H., Catholic University of America, Washington, D. C.  
Sabine, Professor George H., Ohio State University, Columbus, Ohio.  
Sabin-Smith, Professor Ethel, Mills College, Calif.  
Sait, Professor Una Bernard, Scripps College, Claremont, Calif.  
Salter, Mr. William M., Silver Lake, N. H.  
Sanborn, Professor Herbert C., Vanderbilt University, Nashville, Tenn.  
Sanford, Gertrude Virginia, 1371 Locust Street, Pasadena, Calif.  
Saunders, Professor Kenneth J., Pacific School of Religion, Berkeley, Calif.  
Savery, Professor William, University of Washington, Seattle, Wash.  
Savides, Professor A. P., Russell Sage College, Troy, N. Y.  
Saw, Ruth L., Smith College, Northampton, Mass.  
Schaub, Professor E. L., Northwestern University, Evanston, Ill.  
Schaupp, Professor Zora, University of Nebraska, Lincoln, Nebraska.  
Schilpp, Professor P. A., College of the Pacific, Stockton, Calif.  
Schmidt, Professor Karl, Carleton College, Northfield, Minn.  
Schneider, Professor Herbert W., Columbia University, New York City.  
Scoon, Professor Robert M., Princeton University, Princeton, N. J.  
Scott, Professor Benjamin D., Pomona College, Claremont, Calif.  
Scott, Professor W. H., Ohio State University, Columbus, Ohio.  
Searles, H. L., James Millikin University, Decatur, Ill.  
Sellers, Professor R. W., University of Michigan, Ann Arbor, Mich.  
Sellen, Professor Arthur G., Washburn College, Topeka, Kansas.  
Shafer, Professor Robert, University of Cincinnati, Cincinnati, Ohio.

Shanahan, Professor E. T., 770 Mt. Auburn Street, Watertown, Mass.  
 Sharp, Professor Frank C., University of Wisconsin, Madison, Wis.  
 Sharrard, Professor J. A., University of Saskatchewan, Saskatoon,  
 Canada.

Shaw, Professor C. G., New York University, New York City.  
 Shaw, Professor J. B., University of Illinois, Urbana, Ill.  
 Shearer, Professor Edna A., Smith College, Northampton, Mass.  
 Sheffer, Dr. H. M., Harvard University, Cambridge, Mass.  
 Sheldon, Professor W. H., Yale University, New Haven, Conn.  
 Sherman, Professor Charles L., Willamette University, Salem, Ore.  
 Shimer, Dr. Wm. A., Ohio State University, Columbus, Ohio.  
 Shrysk, Dr. J. K., University of Pennsylvania, Philadelphia, Pa.  
 Singer, Professor Edgar A., University of Pennsylvania, Philadelphia,  
 Pa.

Sisson, Professor E. O., Reed College, Portland, Ore.  
 Slaght, Professor W. E., Cornell College, Mt. Vernon, Iowa.  
 Slonimsky, Dr. Henry, 393 West End Ave., New York City.  
 Smart, Professor Harold R., Cornell University, Ithaca, N. Y.  
 Smith, Professor Henry B., Box 23, College Hall, University of Penn-  
 sylvania, Philadelphia, Pa.  
 Smith, Professor T. V., University of Chicago, Chicago, Ill.  
 Sneath, Professor E. Hershey, 309 St. Ronan Street, New Haven,  
 Conn.

Snow, Dr. Adolph J., Northwestern University, Evanston, Ill.  
 Spaulding, Professor E. G., Princeton University, Princeton, N. J.  
 Speight, Professor H. E. B., Dartmouth College, Hanover, N. H.  
 Spencer, Dr. Margaret N., 400 Whitney Ave., New Haven, Conn.  
 Spencer, Dr. W. Wylie, 400 Whitney Ave., New Haven, Conn.  
 Springer, Professor F. E., University of Idaho, Moscow, Idaho.  
 Squires, Professor W. H., Hamilton College, Clinton, N. Y.  
 Stanley, Dr. Philip, Union College, Schenectady, N. Y.  
 Steele, Rev. E. S., 1316 Monroe Street, Washington, D. C.  
 Stokes, Dr. Ella H., Penn College, Oskaloosa, Iowa.  
 Stoops, Professor J. D., Grinnell College, Grinnell, Iowa.  
 Storer, Mr. Morris V., Lafayette College, Easton, Pa.  
 Strong, Professor C. A., Fiesole, Florence, Italy. *Life Member.*  
 Stuart, Professor H. W., Leland Stanford University, Calif.  
 Swabey, Professor Marie Collins, Washington Square College, New  
 York University, New York City.  
 Swabey, Dr. W. Curtis, New York University, New York City.  
 Swenson, Professor David F., University of Minnesota, Minneapolis,  
 Minn.

- Swift, Professor R. F., Rockford College, Rockford, Ill.  
Symons, Professor N. J., Dalhousie University, Halifax, N. S., Canada.  
Taeusch, Professor C. F., Harvard School of Business Administration,  
Cambridge, Mass.  
Talbert, Professor Ernest L., University of Cincinnati, Cincinnati,  
Ohio.  
Talbot, Professor Ellen B., Mt. Holyoke College, South Hadley, Mass.  
Tapper, Professor Bonon, University of Iowa, Iowa City, Iowa.  
Tawney, Professor Guy A., University of Cincinnati, Cincinnati, Ohio.  
Taylor, Professor W. J., Training School for Teachers, Brooklyn,  
N. Y.  
Taylor, Professor W. S., Pierce Hall, Northampton, Mass.  
Ten Hoor, Professor Martin, Tulane University, New Orleans, La.  
Terrell, Professor Glanville, Louisa, Va.  
Thilly, Professor Frank, Cornell University, Ithaca, N. Y.  
Thomas, Professor George F., Swarthmore College, Swarthmore, Pa.  
Thomas, Mr. Wendell M., College of the City of New York, New  
York City.  
Thompson, Professor R. C., University of Nevada, Reno, Nevada.  
Thomson, Professor M. K., Baker University, Baldwin, Kansas.  
Thorndike, Professor E. L., Columbia University, New York City.  
Toll, Professor C. H., Amherst College, Amherst, Mass.  
Tower, Professor C. V., Ursinus College, Collegeville, Pa.  
Townsend, Professor Harvey G., University of Oregon, Eugene,  
Oregon.  
Tsanoff, Professor R. A., The Rice Institute, Houston, Texas.  
Tufts, Professor James H., University of Chicago, Chicago, Ill.  
Tufts, Dr. Matilde Castro, University of Chicago, Chicago, Ill.  
Turner, Professor John P., College of the City of New York, New  
York City.  
Tuttle, Professor John R., Elmira College, Elmira, N. Y.  
Uchenko, Dr. Andrew P., University of Michigan, Ann Arbor, Mich.  
Urban, Professor Wilbur M., Dartmouth College, Hanover, N. H.  
Van Becelaere, Rev. E. L., 1428 Warren West, Detroit, Mich.  
Van de Walle, Professor William E., University of Rochester,  
Rochester, N. Y.  
Van Riper, Dr. Benjamin, 110 Sheridan Street, Rockford, Ill.  
Veazie, Professor Walter B., University of Colorado, Boulder, Colo.  
Vibbert, Professor Charles B., University of Michigan, Ann Arbor,  
Mich.  
Walcott, Professor G. D., Long Island University, Brooklyn, N. Y.



- Warbeke, Professor John M., Mt. Holyoke College, South Hadley, Mass.
- Ward, Professor Paul W., Syracuse University, Syracuse, N. Y.
- Watson, Professor A. C., Marietta College, Marietta, Ohio.
- Weiss, Dr. Paul, 19 Mellen Street, Cambridge, Mass.
- Wells, Professor Wesley R., Syracuse University, Syracuse, N. Y.
- Werkmeister, Professor Wm. H., University of Nebraska, Lincoln, Neb.
- Weyer, Dean Edward M., Washington and Jefferson College, Washington, Pa.
- Wheelright, Professor Philip E., Washington Square College, New York City.
- Whitehead, Professor Alfred N., Harvard University, Cambridge, Mass.
- Whitney, Professor G. W. T., Princeton University, Princeton, N. J.
- Widgery, Professor Alban G., Cornell University, Ithaca, N. Y.
- Wieman, Professor H. N., University of Chicago, Chicago, Ill.
- Wild, Dr. John, Harvard University, Cambridge, Mass.
- Wilde, Professor N., University of Minnesota, Minneapolis, Minn.
- Wilkie, Professor John, Occidental College, Los Angeles, Calif.
- Williams, Mr. Donald C., Harvard University, Cambridge, Mass.
- Williams, Mr. Gardner, University of Michigan, Ann Arbor, Mich.
- Williams, Professor R. D., Pomona College, Claremont, Calif.
- Williams, Professor S. P., Lake Forest University, Lake Forest, Ill.
- Williamson, Professor Mary, Hollins College, Hollins, Va.
- Wilm, Professor E. C., Colorado College, Colorado Springs, Colo.
- Wilson, Professor G. A., Syracuse University, Syracuse, N. Y.
- Wilson, Dr. Mabel Virginia, 103 Hanshaw Rd., Ithaca, N. Y.
- Wolfson, Professor Harry A., Harvard University, Cambridge, Mass.
- Wood, Mr. M. H., Occidental College, Los Angeles, Calif.
- Wood, Professor Ledger, Princeton University, Princeton, N. J.
- Woodbridge, Professor F. J. E., Columbia University, New York City.
- Woods, Professor James H., Harvard University, Cambridge, Mass.
- Wright, Professor H. W., University of Manitoba, Winnipeg, Canada.
- Wright, Professor William K., Dartmouth College, Hanover, N. H.
- Yeaton, Mrs. E. M. K., 106 South Cedar Ave., Oberlin, Ohio.
- Zybura, The Rev. John S., Glockner Sanitarium, Colorado Springs, Colo.

*Associate Members.*

- Adlerblum, Mrs. Nima H., 535 West 110th St., New York City.  
Bentley, E. B., 1220 Washington Ave., Springfield, Mo.  
Dunn, Mrs. Gano, Washington Square North, New York City.  
Gogate, Mr. R. V., New Jersey Law School, Newark, N. J.  
Harris, Dr. B. Malcolm, 115 South Lake Ave., Albany, N. Y.  
MacKnight, Lydia E., New York Training School for Teachers, New York City.  
Maxwell, Dr. William, State Teachers College, Santa Barbara, Calif.  
McConnell, Rev. Francis J., 150 Fifth Ave., New York City.  
Thalheimer, A., 3 Roxbury Place, Baltimore, Md.  
Woods, Mr. Anderson, 1454 East 18th Street, Brooklyn, N. Y.

*Honorary Member.*

- Carus, Mrs. Mary Hegeler, La Salle, Ill.

THE LIBRARY OF THE

JUL 20 1933

UNIVERSITY OF CHICAGO

w  
f.